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U.S. Interstate Commerce
Commission

Before the Interstate
Commerce Commission

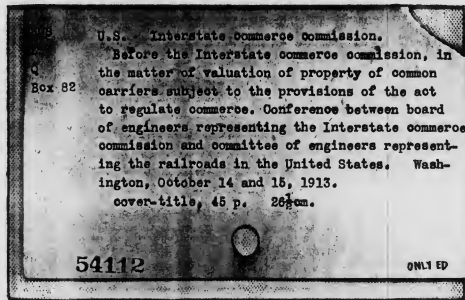
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FILM SIZE: 35mm

REDUCTION RATIO: 14:1

IMAGE PLACEMENT: IA ☒ IB ☐

DATE FILMED: 3-27-97

INITIALS: PB

TRACKING #: 21872

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BEFORE THE
INTERSTATE COMMERCE COMMISSION

IN THE MATTER OF VALUATION OF PROPERTY
OF COMMON CARRIERS SUBJECT TO
THE PROVISIONS OF THE ACT
TO REGULATE COMMERCE

Conference between Board of Engineers Representing the
Interstate Commerce Commission and Committee
of Engineers Representing the Railroads
in the United States

Washington, D. C.

October 14 and 15, 1913

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Before the Interstate Commerce Commission.

IN THE MATTER OF VALUATION OF
PROPERTY OF COMMON CARRIERS
SUBJECT TO THE PROVISIONS OF
THE ACT TO REGULATE COMMERCE.

Conference between Board of Engineers representing the Interstate Commerce Commission and Committee of Engineers representing the Railroads in the United States.

WASHINGTON, D. C.,
Tuesday, October 14, 1913.
10.30 o'clock A. M.

Present:—The members of the Engineering Board, representing the Commission, Mr. R. A. Thompson (Chairman of Conference), Mr. H. M. Jones, Mr. W. D. Pence, Mr. J. S. Worley and Mr. Edwin F. Wendt.

Present also:—Messrs. John Y. Bayliss, D. V. Moore, F. L. Pitman, Frank Rhea and Carl C. Witt, District Engineers of the Division of Valuation, Interstate Commerce Commission.

The members of the Railway Engineers' Committee; Mr. Thomas W. Hulme, General Secretary of the Presidents' Conference Committee; George W. Kittredge, Chief Engineer, New York Central & Hudson River Railroad; M. L. Byers, Special Engineer, Delaware & Hudson Co.; J. D. McCubbin, Jr., Real Estate Agent and Member, Valuation Committee, Baltimore & Ohio Railroad; D. W. Lum, Special Engineer, Southern Railway; C. S. Churchill, Chairman Valuation Committee, Norfolk & Western Railway; W. L. Seddon, Assistant to President, Seaboard Air Line; Robert Scott, Superintendent Insurance Department, Atlantic Coast Line Railroad; E. Holbrook, Special Engineer, Southern Pacific and Union Pacific Railroads; H. C. Phillips, Valuation Engineer, Atchafalaya, Topeka & Santa Fe Railway; C. H. Smith, Assistant Engineer, Missouri Pacific Railway; J. B. Berry, Assistant to President, Chicago, Rock Island & Pacific Railroad; Charles Hansel, Consulting Valuation Engineer, Pennsylvania Railroad; W. G. Brantley, Counsel for Southern Group of Railroads. Absent:—Thomas Cooper, Assistant to President and Land Commissioner, Northern Pacific Railroad.

Present also:—George Stuart Patterson, Counsel for Eastern Group of Railroads; Peirce Butler, Counsel for some of the Western roads; A. W. Carpenter, of the New York Central; H. Bortin, Assistant Engineer, Union Pacific Railroad; D. W. Gross, Engineer of Construction and Member, Valuation Committee, Atlantic Coast Line; E. H. Earp, Valuation Engineer, Seaboard Air Line Railroad; T. L. Philips, Assistant to Vice-President and General Solicitor, Missouri Pacific Railway; W. S. Battle and J. M. Rodgers, Members, Valuation Committee of the Norfolk & Western Railway; W. J. Wiggins, Valuation Engineer, Pennsylvania Lines West of Pittsburgh; C. A. Preston, Valuation Engineer, Pennsylvania Lines East of Pittsburgh.

Present also the following members of National Association of Railway Commissioners:

O. P. Gothlin, Superintendent Rate and Service, Ohio Commission; G. A. Henshaw, Commissioner, Oklahoma Corporation Commission; Clifford Thorne, Commissioner, Iowa Railroad Commission; Clyde B. Aitchison, Railroad Commissioner, Oregon; T. J. Strickley, Kansas; R. A. Martin, Kansas; M. R. Maltbie, New York; and Mr. Ewald, Illinois.

PROCEEDINGS.

CHAIRMAN THOMPSON:—Mr. Hulme, we will take up the first subject on the program, which is the second tentative draft of specifications for the preparation of basic maps and profiles. I think you have that before you and we would like to hear anything you have to say.

STATEMENT OF THOMAS W. HULME,
GENERAL SECRETARY, PRESIDENTS' CONFERENCE COMMITTEE.

MR. HULME:—The Railroad Committee has gone over the revision, and is prepared to discuss them with you. The Committee is under the impression that this is a discussion before the distribution of the revision by the Commission to the carriers. Is the Committee correct in its understanding as to that?

CHAIRMAN THOMPSON:—I think so.

MR. HULME:—So before it should be issued as a final order it would have been distributed to each of the carriers and further opportunity offered to each of the carriers to make any suggestions as requested by the Secretary of the Commission in the letter on the first page, if such carriers desire so to do.

CHAIRMAN THOMPSON:—Do you mean that after the discussion at this time a further distribution will be made to the carriers?

MR. HULME:—That is our understanding.

CHAIRMAN THOMPSON:—I do not understand, Mr. Hulme, that a third revised draft will be made as a result of this conference. This second tentative draft is being distributed to the carriers now and I do not understand that the Commission will further distribute this draft. It may be revised as a result of this conference and as a result of criticisms that the carriers may file with regard to the second tentative draft, but I do not understand that it will be further distributed. Possibly it may be.

MR. HULME:—I think you have made it clear to me, then, that in addition to furnishing the Committee with this revision, the Commission has also mailed, or is now mailing, copies of the revision to the carriers.

THE CHAIRMAN:—I understand it is being served on the carriers.

MR. HULME:—So that entirely aside from any discussion to-day, if the Committee should feel, as a result thereof, that it should make a further answer on behalf of the carriers, there will be opportunity to do so?

MR. HULME:—My inquiry was made for the purpose of bringing out the situation clearly. It does not alter our situation at all in this discussion of the revision with you. It will be of some importance to us in determining whether we should file a formal answer or not with the Commission and if the Board will be good enough to consider that phase of the subject and advise us with reference to it before the discussion is concluded during the day, it will serve our purpose.

CHAIRMAN THOMPSON:—I am not informed as to what the procedure will be so far as the Commission is concerned after they consider this draft. After this draft is considered it will be presented to the Commission for such action as the Commission may desire to take. The discussion to-day will be recorded and presented to the Commission. Whether or not the Commission will issue another draft or give the carriers further notice I am not prepared to say, because I am not entirely familiar with the proceedings of the Commission. There is no doubt, however, but that the carriers will all have due and proper notice of whatever the Commission proposes to do in the matter.

MR. HULME:—Before proceeding in detail with a discussion of the revision I should then like to make it a matter of record, in view of the uncertainty as to whether there will be any further

formal hearing, that this Committee, acting for the carriers, must reaffirm and rely upon the answer it made to the first draft of the specification. It does not desire or intend that its position, as stated in that answer, shall be considered as in any way altered or modified by the discussion in which we are about to participate.

This statement is merely made in order that our former position may be preserved, and in view of the fact that we have not prepared any formal answer to this second revision, it not being understood that we were expected to do that at this time; and with that understanding we are now prepared to go ahead with the detailed discussion.

CHAIRMAN THOMPSON:—Do I understand that the carriers desire to file with the Commission a formal statement pertaining to this second tentative draft subsequent to this hearing?

MR. HULME:—The Committee representing the carriers was appointed for the purpose of facilitating the consideration of the matter. I do not think this Committee would care to be in the position of having made a final answer for the carriers without having had the opportunity to participate in a discussion with the individual carriers in order to learn their views in connection with it.

We were left in a great deal of uncertainty as to just what was intended in this discussion and hearing this morning, because the letter printed on the first page, signed by the Secretary to the Commission, states that the carriers can make further suggestions in connection with the situation, and we were not advised as to whether or not this revision had been distributed to all of the carriers.

This statement on my part is not intended as any technical point in connection with the situation, but merely that it should not, through any lack of understanding, appear as a final statement of the views of the carriers in this connection. It is possible in our discussion that we might agree upon all features of the revision or suggest some changes that we would like to make, and it may not be necessary to further delay the proceeding by waiting for a formal answer from all the carriers.

MR. JONES:—What are your wishes in the matter as to the distribution of this second tentative draft?

MR. HULME:—I think we would be better able to advise you as to that after we have discussed it, with view to the changes that have been made and those that we have further to suggest.

MR. JONES:—This second tentative draft has not been mailed to every individual carrier in the United States. It has reached, we suppose, eighty-five or ninety per cent. of the mileage through your Committee. Now is it your idea that it should have a broader distribution than that?

MR. HULME:—That is, you mean it has reached that eighty-five or ninety per cent. through the copies that were sent to me as Secretary of that Committee?

MR. JONES:—Yes.

MR. HULME:—And not by direct distribution to the carriers.

MR. JONES:—No.

MR. HULME:—As to whether we should feel that you should make a distribution direct to the carriers would depend on the outcome of our discussion with you to-day.

CHAIRMAN THOMPSON:—As I understand the procedure of the Commission, by giving this tentative draft to the carriers, it is giving the carriers an opportunity to answer and your Committee, representing the carriers, an opportunity to answer. I do not understand that the Commission is legally required to do anything further. I might say that I am not familiar with the legal process.

The second tentative draft was drafted more to discuss the matter with your Committee and the carriers through your Committee, your Committee representing a large percentage of the carriers, and I do not understand that it was necessary on the part of the Commission, before issuing these specifications, to issue formally this second tentative draft. It is in a sense, you might say, a courtesy to the carriers to issue this second tentative draft to draw out further discussion on the

subject. I do not understand that the Commission is legally required to issue this second tentative draft to the carriers before establishing and making its final order.

MR. HULME:—I raise no point as to that.

CHAIRMAN THOMPSON:—I am not absolutely sure about this, but that is my understanding.

MR. HULME:—My sole purpose in making the inquiry is to get an understanding in order that it may not be considered that this Committee is making a formal answer on behalf of all the carriers through this discussion to-day. The discussion will clearly indicate just what the situation is, and I prefer to go on with the discussion of the details, if such is the pleasure of the Board.

CHAIRMAN THOMPSON:—How do you wish to proceed with that discussion? Will you take it up by sections, or will you state it generally?

MR. HULME:—I should think that we should take it up by sections. I apprehend, however, that it would facilitate an understanding of our position by the members of the Board if, before entering into any detailed discussion, I should in a general way give you our further suggestions. Then you would have generally in mind what we want to discuss with you in detail, and would not be attempting to anticipate something that would come up later in a logical way.

If that procedure is agreeable I will outline in a general way what our suggestions are.

We shall again ask you to change the caption, because your caption requires us to prepare basic maps to support a valuation which you will make. We feel our duty is to furnish you with maps that will aid you in making a valuation.

We will offer you some suggestions as to changes in the intent which do not materially affect the specifications, but which, from our standpoint, more clearly define the purposes thereof.

Under "materials," we shall ask you to eliminate the word "lithographic" and substitute such wording as we believe will more clearly show the intent of the Board.

There are some portions, the meaning of which we shall ask you to explain to us in order that there may be no misunderstanding in connection therewith.

Under the heading "Data Required," at the top of page 13, we think the word "occupied" should be changed to "own," and we will suggest to you the striking out of the last sentence under Section (a): "The schedule will also refer to leases of land made by the company to others for terms of one or more years."

Under B, Section 1, we shall ask you to change, after the words "lands owned" "and," to "or," so that it shall read "lands owned or used."

On page 14, under "Improvements" we shall ask you to eliminate in the fifth and sixth lines of that paragraph, commencing with "signals," and ending with "dimensions," and to add to that paragraph:

"And in all cases the data above mentioned may be set out and contained in a separate schedule."

Under Item 17, Paragraph B, in the second, third and fourth lines we shall again ask you to eliminate the following:

"Stating the kind and general dimensions by figures; average depth of penetration of piling in each bent of trestles, or under other structures, by vertical projection."

In paragraph "c," beginning with the third line, we believe there is a typographical error in that the word "below" should be "to."

On page 15, in paragraph "d," in the third line, before "other data," we shall ask you to insert "and may show," so that it shall read "and may show other data," and so forth.

CHAIRMAN THOMPSON:—Is it your desire to discuss in detail these several points now, Mr. Hulme?

MR. HULME:—With your permission, I will start at the beginning again?

MR. JONES:—Have you any comments to make with regard to the introductory statement?

MR. HULME:—Yes; but the comments we shall make in connection therewith will be clearly outlined by our discussion under "Intent," where we think some of those statements should more properly appear, rather than in the introductory statement. With reference to the caption itself, it is with some hesitancy that I make the suggestion that the Board did not give as much consideration to our objections to their caption and our suggestions as to changes as they should have done. But the point seems to us so vital and fundamental that I am obliged to again refer to it and to say that the carriers do not consider it any portion of their duty to require them to prepare and file a map to support a valuation made by the Government.

We concede, and we cheerfully will comply with the requirement that we should furnish maps of our property to aid you in making such a valuation, but it seems to us an extraordinary deduction to say that, after you have made a valuation, gathering the information therefor that the carrier, perhaps somewhat to the detriment of their position, that they should be required to prepare a map to support that valuation.

We strongly object to the use of the word "support" in that connection, and we therefore ask that you change the caption so that in the first line, in lieu of the word basic, you insert "certain," and on the third line in place of "support," you insert the words "to aid."

That is all I have to say specifically in that connection, but I will proceed with an explanation of our thoughts as to the intent, and shall be glad to have the Board at this time, as indicated by their program, enter a discussion of the caption.

MR. JONES:—I would like to get a little clearer in my mind your idea about the word "support." Would not the inventories which you may furnish also support the valuation?

MR. HULME:—If we are to furnish an inventory—if you are to ask us to do that—it will undoubtedly support it.

MR. JONES:—I understand you have expressed a willingness to furnish inventories, at least in some cases?

MR. HULME:—You are correct, sir, in your understanding.

MR. JONES:—Is not any record that you may furnish a support of the valuation to the extent that the record states facts?

MR. HULME:—Unquestionably.

MR. JONES:—I did not catch the exact discrimination in the meaning of these other records which you might furnish as supporting the valuation and maps which you might furnish. They are supports to the extent that they are correct, whether they aid you or do not aid you. If they are correct, and a valuation is made, they will support it by showing the facts in a graphical way.

MR. HULME:—Originally, Mr. Jones, your specifications provided that we should show on the maps quantities in sufficient detail. So long as that was retained it might be said that all quantities which were placed on our maps would be in support of your valuation to the extent that the quantities participated therein. But now that, for at least ninety per cent. of our maps, we shall not be required to furnish the quantities, and all your specification requires is a map which is practically a key index to the inventory which shall be prepared, it is very clear to this Committee that the maps no longer support that valuation.

MR. JONES:—I do not understand that we have eliminated anything except, possibly the quantities on profiles. We require the showing of all lands on maps, the acreage, the schedule of the deeds and conveyances. We require you to show by an accurate schedule, or otherwise, the length of all your contracts. In fact, we practically require the quantities that can be obtained—if they are not written out in figures—by scaling, except grading quantities, probably on the profiles. To the extent that these maps show the facts, I do not see how you can get away from the fact that they will be a support of the valuation; that if they are any aid at all, they are a support, and they support it to the extent that they do aid you.

MR. HULME:—It might seem to you like a refinement, but it does not seem so to us. When we express a willingness to comply with your requests or orders to furnish you with maps we ask that you should not, by a caption to your directions in connection therewith, make it appear as though greater force should be given to our acts than we intend to be covered thereby. From our maps you simply draw some deductions or conclusions and we might make entirely different deductions or conclusions from those maps, unless everything is to be recorded upon those maps, so that he who reads may learn therefrom with absolute correctness.

It is quite an important point to our mind, and I do not see that it can make any difference to the Government. We merely ask that the heading should not seem more than the specifications, in our judgment, mean.

CHAIRMAN THOMPSON:—What difference does it make to the carrier as to whether we say in support or aid of the valuation?

MR. HULME:—I am not prepared to say now that it would make any absolute difference in the end, but I am uncertain lest the carriers' position might be prejudiced by acquiescing in a heading which they feel to be incorrect and misleading. What difference does it make to the Government if the wording should be so clear that there could be no objection to it?

CHAIRMAN THOMPSON:—These records are being filed to support the Government's valuation and not the carrier's valuation, are they not?

MR. HULME:—Therefore it should follow logically that the Government should make the maps to support its valuation.

CHAIRMAN THOMPSON:—Under the Act the carriers can be required to file certain data and information which would be the basis of the Government's valuation.

MR. HULME:—And that would be evidence as to what the carriers possessed, but it would not be evidence as to the value of what the carriers possessed.

CHAIRMAN THOMPSON:—I cannot see where the carrier is committing itself in complying with these specifications as read here.

MR. HULME:—I do not know that the carrier does commit itself in any way to one dollar of valuation in connection therewith; and the important point is that you should not make it appear by your caption that the carrier does commit itself to support your valuation in connection with it. I do not know that I could make it any clearer by continuing an hour or so on it, and I am content to stop right there.

MR. JONES:—Let me throw out one little additional remark. If these records were furnished simply as aids in making the valuation they would not accomplish the entire purpose which is meant by the specification. We specify a permanent record of the valuation, and we justify that permanent record because of the absolute necessity of identifying it and checking it up in years to come. If it was simply an aid, it is conceivable we might accept any kind of maps from you. We will accept a great many maps other than those here specified as aids; but these are to form a permanent record and as such will support the valuation that is made at this time. They will be the basis from which your future extensions and improvements will be made.

MR. HULME:—Mr. Jones, I have always entertained a great deal of respect for the reference which you have always made in connection with any of our controversies. You have always said that the Act was your bible and I have been studying it for some months in order to be sure to understand your point of view. I would call your attention to the fourth paragraph of the first section which says that the carrier shall furnish maps, profiles and other papers in aid of such investigation. It does not say anywhere "to support the conclusions of the Commission," but "to aid"; and I think if you will just look up those words in the Act you will find sufficient authority for changing your caption from "support" to "aid".

CHAIRMAN THOMPSON:—The Board will give your suggestion consideration, Mr. Hulme, unless you desire to discuss it further at this time.

MR. HULME:—Shall I proceed with the "Intent"?

CHAIRMAN THOMPSON:—Yes.

MR. HULME:—Under "Intent," we again refer to the Act. In the second line, we request that you strike out the words "and record," and insert before the word "report" the word "and," so that it shall read: "In order that the Interstate Commerce Commission may investigate, ascertain, and report the value of the property."

The change requested is to again make it comply with the Act which requires that the Commission shall investigate, ascertain and report, and nowhere in the Act do I find the word "record."

In the fourth line of the first paragraph of "Intent," we ask you to change the word "prepared" to "furnish."

In lieu of the second paragraph of "Intent," we think you should make absolutely clear just what is the intent of the Government with reference to the application of these specifications. In the introductory statement there is indicated a purpose upon the part of the Government not to require the making of new maps by the carriers for existing properties, and assurance is given that only such work will be required as is necessary to perfect those maps, and then the clearness of your language ceases. We are left uncertain as to what perfecting them will mean. But believing it is your intention not to require the construction of new maps we suggest as a substitution for the second paragraph of "Intent," the following language, in lieu of what you have:

"These specifications do not apply to existing maps and profiles where the same are in the opinion of the Commission sufficient for the investigation and determination of the value of the property of the carrier, and upon application the Commission will determine the extent, if any, to which such existing maps and profiles shall be perfected so as to accomplish the purpose aforesaid."

"The carriers, however, are assured of the purpose of the Commission to demand only that amount of work to perfect existing maps and profiles as in its judgment is necessary to make them acceptable; and to enable the Commission to begin the valuation work promptly the carriers shall furnish copies of existing maps, profiles and other standard and special plans that will assist the Commission in its work. Existing maps, profiles and other plans shall be collected together by the carriers at their general engineering offices for inspection by the Commission and copies of such maps, profiles and other plans which it determines useful for its purpose shall be furnished when requested."

Mr. Chairman, that is what we suggest as a substitution and it is largely a re-arrangement.

CHAIRMAN THOMPSON:—You propose that as a substitute for the second paragraph under "Intent."

MR. HULME:—Yes, in order that there may be embodied in that portion of the specifications a clear expression as to just what is to be covered thereby, and their application. The suggestion is made for the same reason that we made the suggestion in answer to your first draft, that it would be well to avoid foot-notes and to avoid statements outside the specifications, letting the specifications, and the intent at the beginning thereof show clearly just what it meant and just what it covered.

MR. WENDT:—Would it not be better to consider these specifications, in the first instance, from the standpoint of one uniform national standard for work which is to be done hereafter, agreeing as to the specifications which form this national standard, and then afterwards take up the question of the application of that standard to these maps and profiles which were created in the past?

MR. HULME:—That would be entirely agreeable to our Committee, and that is an absolutely correct statement. It is our understanding that these specifications in their fullness only apply to maps that are to be made in the future, and in due course we shall show that they should not be made to apply in all their fullness under all circumstances. That is, we do not believe it is possible to fully comply therewith in the making of maps as to existing railroads, where there are now no maps, because some information cannot be ascertained, which information could be ascertained in future constructions.

MR. WENDT:—The point I make is that we should first determine the contents of these national specifications for new work and afterwards take up the question of the adaptation or application of that standard to railways built in the past, referring to maps and profiles.

MR. HULME:—If that is the desire of the Board it will be entirely agreeable to us to discuss it from that standpoint.

CHAIRMAN THOMPSON:—It seems to me what we are discussing now is the specifications for maps and profiles; in other words, setting forth the materials and forms of records which are hereafter to be prepared. It does not occur to me that it is proper to include exceptions relating to existing maps and profiles under the specifications, so far as the existing maps and profiles may be suitable for the Commission's purposes and so far as the exceptions may be made to the specifications. It seems to me that is the subject of a separate statement—an introductory statement as we have placed it here. The specification itself ought to contain directions as to how maps and profiles should be prepared, and I think the purpose of the Board in drawing the specification was to exclude from the specification proper such matter therefrom as you have stated. As to how the maps and profiles of existing lines are to be excepted from this is entirely a different proposition as I look at it, and we so state in this introductory statement that that will be a matter of separate investigation on the part of the Commission.

MR. HULME:—It is a matter of judgment as to where it should be placed. I do not think in the end, when you have made clear the intent of the application of the specification, that we will quarrel with you as to where it should be placed. The duty of this Committee is to endeavor to be helpful and not merely critical. We did not content ourselves with merely objecting to your words, but we suggest in lieu thereof what, from our standpoint, would make it proper and clear in its application to thousands of people who will have to interpret it.

CHAIRMAN THOMPSON:—You are simply suggesting that in the specifications the intent goes further than specified?

MR. HULME:—What is that?

CHAIRMAN THOMPSON:—Your suggestion is that we elaborate on the intent idea. You think it does not go far enough. You are perhaps suggesting something that the Board did not intend.

MR. HULME:—I think not, Mr. Chairman. Our purpose was to express clearly what we understand you to intend; but we thought your words were not as clear as they might be in view of the fact that we were unable, without familiarity, to fully grasp just what your intent was. We thought it was better to suggest something in the discussion by which there must certainly be drawn out just what the intent is in connection therewith.

CHAIRMAN THOMPSON:—Your idea is that our intents are identical, then?

MR. HULME:—I am not at all certain or sure that our intentions are identical. I would like to know what your intentions are.

CHAIRMAN THOMPSON:—We tried to state it clearly.

MR. JONES:—You no doubt appreciate that with the possible millions of drawings in existence throughout the country that it would be a little difficult for us to give exactly the detail of our intent as to how we are going to look upon all of those drawings.

MR. HULME:—I have no desire to indicate to the Board just how this should be discussed. I do think that Mr. Wendt rather struck the keynote. If you first confine the consideration of this to its application in the future, I think we will very rapidly dispose of any suggestions that we may have in our mind in connection with that; and then if we can consider it as to how far maps of existing properties are to be made to comply with these specifications, we will clear up that. That had better come before the order is issued than afterwards.

CHAIRMAN THOMPSON:—Is not that another proposition?

MR. HULME:—No, sir; it is a part and a very important part of this proposition. The question is what are the carriers to be required to furnish to the Government as maps for their

permanent files. The application of these specifications, in a general way, may be said to be ten parts to new and nine parts to existing properties. Therefore, from the standpoint of the carrier it is of the greatest importance that it should know to what extent these specifications are to be made to apply to its existing properties.

CHAIRMAN THOMPSON:—These specifications apply to maps and profiles which are to be prepared.

MR. HULME:—These specifications apply only to maps and profiles that are to be prepared in the future?

CHAIRMAN THOMPSON:—That are to be prepared; yes. To the extent to which existing maps and profiles apply, or what the Commission will require is, as I say, another proposition. It may be that profiles and maps of existing railroads may have to be prepared, and if they do have to be prepared by you then they will have to be prepared in accordance with these specifications. In getting up data from resurvey of lines and so forth, in case you have to remake your maps and profiles, then these specifications would apply.

MR. HULME:—There has been a fear, Mr. Chairman, on the part of some members of our Committee that these specifications were to apply in full force to the perfection of existing maps. The carriers with the assurance that you have just given us, that they are not to so apply, but are to apply solely to new maps to be made, will be very glad to go on and discuss it from the standpoint of its application to new maps.

MR. THORNE:—Is not the Chairman's statement embodied in the last clause of the "Intent"?

MR. HULME:—Perhaps in view of the explanation that has been made by the members of the Board that drafted these specifications, it is more clearly shown in that way; but without the discussion that we have had I do not think it would have been clear to a railroad man what was to be the extent of the application of these specifications.

MR. JONES:—I do not think it is clear in your mind right now, Mr. Hulme. I think you have probably drawn a conclusion not justified. It is to apply to all maps and the perfection of all maps. It is the standard, but in the application of it to existing maps and profiles, every letter of the specifications may not be insisted upon.

MR. HULME:—What letters will not be insisted upon?

MR. JONES:—That will have to be a matter of common sense and judgment on the production of evidence, as to whether they are substantially in accord with the specifications and it will have to be taken up as a separate matter, probably, in the case of each carrier. As the intent says, they shall apply to all maps and profiles existing at the date of issue of the order, except as they may be modified by special permission. I do not know how you could express it any clearer than that.

MR. HULME:—I can tell you how you can express it clearer. Your words raise again the issue that we discussed before.

You say that our present maps are to be perfected to comply with these specifications, and that makes it necessary that I should reaffirm all that was said in our formal answer, that it is not necessary for valuation purposes to make the maps comply with these specifications. In our answer we offered to furnish you with maps that are sufficient for valuation purposes, and we say to you that these specifications go beyond what is necessary for valuation of a property. We brought out and gave you the testimony of a dozen engineers who have valued thousands of miles of railroad and they stated that your specifications required maps that were not necessary for valuation purposes. So if you say that our present maps are to be perfected to comply with these specifications, we may as well tell you that they cannot be made to comply with them and I do not believe we would undertake to comply with them. We will furnish you with maps that we are sure will be sufficient for valuation purposes, but I tell you again that a compliance with these specifications is not necessary for valuation purposes.

MR. WORLEY:—Just as a matter of information. You have at your resource the best information there is in the United States on this subject. You have asked a specific question of five men who have not ten per cent. of the information which you have. It is a very hard question for us to answer. We might, if we wanted to take the narrow view of it, say that according to what you have suggested, we would have to write one thousand or ten thousand specifications to meet what you want. We all know that is ridiculous. You men have talked of this for three or four months and you are thoroughly familiar with everything that exists. I would like to know, and the members of this Board would like to know what you think should be furnished and what you want to furnish. Do you want to modify any of your maps, and if so to what extent do you want to modify them. That will give us an idea as to what it shall be.

MR. HULME:—At the very outset, Mr. Worley, this Committee expressed the view that the first draft of specifications covered more than was necessary for valuation purposes. They were informed by the members of the Board that it seemed to the Board as though it would be an extremely advisable and helpful thing if a standard of map construction was created to apply throughout the country. We expressed our willingness to make our maps in the future in accordance with the general line of your specifications, subject to some modifications which do not materially affect them. We told you that the maps that the carriers had of their existing property did not commence to comply with or meet the requirements of these specifications. Those maps have been constructed during a period of over seventy years, under widely different conditions and with very different features. We stated that the existing maps of the carriers could not be made to comply with the specifications without a complete reconstruction. We put to the carriers an inquiry as to the extent to which they had maps of their property and we filed those returns with your Board. The returns indicated that the carriers have fully seventy-five per cent. of their property mapped in a way that is sufficient for their purposes. We also, by the evidence, or rather the statement of ten or twelve engineers, on September 3d, informed you that the maps of the carriers had been found by these men sufficient for valuation purposes for many thousands of miles. We certainly must object to the application of these specifications for many thousands of miles. We certainly must object to the application of these specifications in the manner in which Mr. Jones stated—that our existing maps would be expected to be perfected to meet the specifications, because in our judgment these specifications go beyond what is necessary for valuation purposes. And that is where your authority ceases,—with what is necessary for valuation purposes.

The fact that they go beyond that for maps to be made in the future is not raised by us. We waived that point; we let it pass. We practically said that we would make the maps in that way; but that we were not willing to attempt to make our existing maps comply with these specifications.

Now, if that is the intent of this Board, we might as well have the issue clear cut right now. We cannot get the information to do it. It would impose upon the carriers an expense so tremendous that it would equal the cost to the Government of doing the work. I must stop there, because if I went any further I might regret it.

MR. WORLEY:—I do not wish to press an answer to my question. I was seeking information, and in answer to me you have emphasized the impossibility of the thing. I want to call your attention to the fact that if it was impossible to do it, you certainly could not do it. This is going to be a common sense job, and anything that this Board or the Commission would ask, the intent of it would be along that line. With respect to the seventy-five per cent. of the maps you have in existence, my question was as to what provisions you men think should be made about those, if any. I do not care to press the question if you do not care to answer it. But in seeking information, and trying to arrive at a conclusion I have told you that you have ninety per cent. of the information and we have ten per cent.

MR. HULME:—Perhaps I was unduly aroused by the difference in the statements made by the Chairman, who said the specifications would not apply except to future maps, and the statement of Mr. Jones who said that they would.

MR. JONES:—I think you have misquoted my statement.

MR. HULME:—I hope so.

MR. JONES:—But I wish to make it plain that the intent expresses exactly the thought of the Board that it does apply to existing maps, except as the order may be modified by special permission of the Commission. There is an exception there, and the exception is to be determined on the facts presented.

MR. HULME:—The reason you did not show the extent to which you would modify the application of these specifications was because you did not know what are shown upon the existing maps of the carriers. How much wiser it would be for you to defer your order until you have found out what the maps of the carriers show.

You are seeking now to issue an order about which, in its general application to the future we do not materially differ, as to its vital effect. In the same breath, you tell us that that is going to apply to the past, except to the extent to which you will modify it. Then instead of telling me what you think would be your modifications, you ask me to tell you what should be your modifications. I think you have reversed the process. I think you should defer the issuance of this until you have made your inspection of the maps of the carriers and can form a judgment as to whether the present maps will be generally sufficient, and then you can put in here something, which will not give you that ideal condition which you seek by the specifications, but will in itself be so specific that you would not have the carrier tremendously concerned as to how this is going to apply to its existing properties. I think that would be a very much wiser thing to do.

CHAIRMAN THOMPSON:—I think the Board regards that as entirely impracticable. It is absolutely impracticable and impossible for the Board to say at this time what it will accept and what variations it will make from these specifications in connection with existing maps and profiles. We know there are thousands of miles of maps and profiles in this country that will be acceptable; we know there are thousands of miles of maps and profiles that contain more information than the specifications call for. We are not going to require those maps and profiles to be worked over. We will require that the form of them and the materials upon which they are filed here shall be standard, because we have to protect the Commission's files to that extent. But we never have intimated and do not propose to intimate in these specifications, so far as I understand them, that we are going to require all of the maps and profiles of the railways in this country to be remade in accordance with these specifications. We know there are thousands of miles of maps and profiles that are sufficient, and we are going to see that they are sufficient for the Commission's purpose in this valuation. Some maps and profiles you admit yourself will not be sufficient, and to the extent to which they will be sufficient we cannot tell until we have examined them. The record of each railway will be a special case in itself; the different parts of the railroad will be special cases; and it will be absolutely impossible in our mind to draft specifications which will contain all exceptions which will cover the entire situation. We feel, Mr. Hulme, that probably the Commission has authority under the Act to require all maps and profiles to be made in accordance with specifications as it may in its wisdom deem proper. As to what is sufficient for valuation purposes is a matter of opinion. The Commission may be of one opinion and the railroads may be of another opinion. We feel that the Commission has the power to require what in its opinion is necessary, but you need not get the idea that we are going to require all maps and profiles in this country to be made to conform literally to these specifications, because I feel sure that I make the correct statement when I say that that is not the intention of the Board.

MR. THORNE:—You have stated several times to-day and before this that there is a great deal required in this proposed order that is unnecessary for valuation purposes. Do you refer to the form in which it is prepared, or do you refer to certain information required?

MR. HULME:—We refer to much that is required.

MR. THORNE:—Much of the information that is required?

MR. HULME:—Yes, sir.

MR. THORNE:—Are you prepared to and are you going to give to the Board any idea as to what part of this information that is asked for is unnecessary for valuation purposes?

MR. HULME:—Mr. Thorne, we gave that in our answer. We are perfectly willing to go over it again.

MR. THORNE:—It seems to me it was the form in which it was to be furnished—

MR. HULME:—(Interposing). I was about to suggest, Mr. Chairman, that we probably will not get very far by confining this general line of discussion.

I think it will simplify the discussion a great deal to consider the application of the specifications to the future, and then we will turn to the question as to the extent, in the judgment of the Committee of the Railroads, it cannot apply to the perfection of existing maps. I believe we will have a great deal of difficulty in trying to consider both barrels of it at once. If the Chairman will indicate the way in which he would like to have that discussed I think we will get along.

CHAIRMAN THOMPSON:—I think probably we had better, at your suggestion, discuss this on the basis of new maps and profiles that are to be prepared, from the standpoint of specifications of new maps and profiles that are to be prepared and filed with the Commission. I would like to have your opinion as to the application of the present language of the caption as to such maps, as to whether or not the filing of such maps would be a support of the valuation.

MR. HULME:—By making these specifications apply only to maps of future construction, there would not be the same force in our objection, because you have already provided, by your addition and betterment reports, that the information on the maps would be merely illustrative. In other words we furnish you the figures as to the money we expended and then have the map as an illustration or support of those figures. We do not question that point. But it stops right there. When we have not furnished the figures I cannot see how our maps can be used to support your judgment.

MR. WORLEY:—I would like to know if the discussion for the next half hour or hour or three hours, whichever it happens to be, is going to be confined to the specifications as to new maps only. If so I want to make some corrections on my sheets.

MR. HULME:—I shall discuss it any way that the Board desires.

CHAIRMAN THOMPSON:—I think it would be better to have the discussion apply to specifications of maps and profiles of new lines.

MR. HULME:—Where we would be able to record all necessary information?

CHAIRMAN THOMPSON:—Yes.

MR. JONES:—Then we are to understand clearly that the caption is highly satisfactory for new maps and profiles?

MR. HULME:—You transpose my words, Mr. Jones. We will say that the maps are really illustrative. But as we do future work and report the cost of that work to you, we suppose we can make them support the valuation, without your taking our figures and calling that your valuation.

MR. PENCE:—If one part of a scheme should be worked out, including the inventory of the property, and as a separate part there should be the specifications, also worked out in proper detail, would not that be satisfactory? That is, the specifications would constitute an essential part of the whole, as would the inventory forms. Do I suggest the things that may be in your mind?

MR. HULME:—You certainly do, Mr. Pence. That is the burden that we have felt all along. Our consideration of these specifications may not have appeared to be as intelligent as it might have been, but if we had a full outline of your plans before us we would have better been able to answer you, and perhaps it would not have been necessary to have made some of the objections we have made. If this discussion had followed the other—it is the third subject on the program for discussion, inventory methods.

MR. PENCE:—My purpose now is to draw out the thing that might bring us closer to a mutual understanding here. Then if there should be an assurance, a mutual understanding, that we are to have a completed scheme, and that it is necessary to do these things properly for the Government, that would perhaps change the basis of our discussion so that we might come immediately to an agreement.

MR. HULME:—I should think it might very materially change it.

MR. PENCE:—I hope the Chairman may be disposed to make that statement so we may get to the point.

CHAIRMAN THOMPSON:—I will ask you to make that statement, Mr. Pence.

MR. PENCE:—I am authorized by the Chairman to say that the plan of work is to be a complete one; that all that is necessary to the best practice will be embodied in the complete plan; and that includes the inventory forms, the preparation of maps and profiles, and all that. I think it has perhaps been through inadvertence that a definite statement has not been made before, and if the lack of that definite statement has been an obstacle I certainly think it should be made.

MR. HULME:—I think it has been, if we may gather from your statement that the Commission does not intend to make a final issuance of this map order until the whole plan has been unfolded and discussed. If that is so, then I think we have progressed to a point where our discussion will be very much more simplified than it has been under the handicap up to this time.

MR. PENCE:—I do not want to press this beyond what you may wish to present just here, except that we seem to be laboring under some misapprehension. I think from the standpoint of the carriers that it is perfectly right that they should desire to see clear through as to all that is to be done. As yet, nobody has determined all that is to be done. I think, however, much is known that can be presented in a frank discussion, and it will promote our free discussion of the matter if it is put on that basis. Our Board has had a discussion of inventory forms and we are to present inventory forms as a part of our scheme. A full consideration of these various things required much time, and it would be a mistake to try to do it all in a day. We have already put in several months in the development of these specifications that are an essential part of the whole scheme, and when each of those parts is developed and all the related matter is worked out, the working plan will be put on a practicable and sensible basis, in full accordance with the provisions of the Act. My statement, just made, was not intended to interfere with the presentation of anything that you desired to discuss, but to make it plain that our Board wishes to have these other things considered as well.

MR. HULME:—If we are to understand that the application of these specifications is to apply only to maps of new construction work, I can conclude my statement in three minutes.

MR. PENCE:—I have not attempted to touch upon that point at all. I understand that you will now discuss the matter on the hypothesis that it will apply to new maps and that later on you will take up the other hypothesis.

MR. HULME:—Perhaps it would be well for the stenographer to make a new heading, "Application of these specifications to the making of maps for future construction work."

MR. WENDT:—Before you start that statement, we stated at a former meeting that it was our conception of this work that it was necessary to create one national standard for maps and profiles. Do you agree with that conception?

MR. HULME:—I do not, nor does the Committee. We do not want to be captious, but as a result of the study that we have given to it, and the statement made as to the widely varied conditions, we think that a standard is quite, if not almost, impossible.

CHAIRMAN THOMPSON:—Do you not think there should be some standard, Mr. Hulme?

MR. HULME:—Yes, sir.

CHAIRMAN THOMPSON:—Do you think the Commission should receive maps here of every different class of material and of different size and of different shape, containing various amounts of information?

MR. HULME:—I do not think that was Mr. Wendt's inquiry.

MR. WENDT:—Let me state it in another way. Let me state Mr. Thompson's inquiry in another way. Do you think any specifications are necessary?

MR. HULME:—Unquestionably, Mr. Wendt. I do not want my answer to be construed as meaning that this Board should not make specifications and that the Board should not have a standard as to the future. I thought you were asking me as a matter of practical expedience whether, entirely aside from your valuation files, a standard should be created for all the maps and profiles of the carriers to which they should comply. For valuation purposes, I am perfectly willing to admit, and the Committee is too, that so far as the future is concerned, it is quite proper for the Board and the Commission to provide specifications which will create some standard, and we are not going to raise any question as to the compliance with that in the future.

MR. WENDT:—Then you do agree with the Board that a standard is necessary with respect to the question which is now under consideration, that is the maps and profiles of all lines to be constructed?

MR. HULME:—I do not want to be captious and I do not like to accept your statement that it is necessary. I would say that it is advisable, and that because it is advisable the carriers will comply with the standard without raising any question.

MR. WORLEY:—I would like to get your view on some of these matters, because we are relying on the judgment of your Committee in these matters a great deal. You have said that your Committee thinks the Board should prepare specifications for maps and profiles and for other work regarding lines to be constructed in the future. What is your answer with regard to the 250,000 miles of existing roads from which we are to receive records?

MR. HULME:—We feel that there should be some standard in writing by which the Government employees could judge of existing maps, but we say that this standard which may apply to the future cannot, without great unnecessary hardship, be made to apply to the past.

MR. WENDT:—I was talking with respect to the standard which would be used in the engineering offices immediately after the issuance of these specifications. Thousands of dollars are expended every week in the preparation of maps and profiles, and my question was: Do you think a standard specification is necessary in connection with the work under that portion of the Valuation Act which reads as follows: "To enable the Commission to make such changes and corrections in its valuations of each class of property, every common carrier subject to the provisions of this Act shall make such reports and furnish such information as the Commission may require." You would not advocate that the Commission should accept the maps and profiles in one hundred different forms, would you?

MR. HULME:—As to the future; no.

MR. WENDT:—We are talking about a standard to apply to the maps and profiles of roads which are to be built in the future.

MR. HULME:—A standard for maps and profiles which are to be made in the future is entirely proper and we have no question to raise as to the propriety of it as I recall. In fact, we highly endorse your efforts to get a proper standard as applying to the future.

MR. WENDT:—Then we start with an agreement in this discussion.

MR. HULME:—We did start with the understanding that we would consider specifications as applying to future construction work.

MR. JONES:—As the first step we pass up the title as being satisfactory.

MR. HULME:—We pass up the title; yes.

CHAIRMAN THOMPSON:—Will you then proceed with the body of it?

MR. HULME:—In the second line in the first paragraph of "Intent," I suggest that you strike out the words, "and record" and insert between the words "ascertain" and "report" the word "and," so that it will read "In order that the Interstate Commerce Commission may investigate, ascertain and report." We think that is absolutely in compliance with the wording of the Act.

MR. JONES:—As a new proposition, and we are discussing it on that basis, what is your objection to the word "record"?

MR. HULME:—I have no objection as a new proposition. I only want to be helpful.

MR. JONES:—We do not quote the entire Act in the specification.

MR. HULME:—My comment with reference to those words in connection with maps for future work should be taken as merely suggestive and not objective.

MR. JONES:—While the Act does not use the word "record," in connection with investigate, ascertain and report, is not the intent of practically the whole Act the establishing of a record? How can the Commission keep itself informed of extensions and improvements unless they have a record of what had already been done?

MR. HULME:—It could not. At the top of page 10, Mr. Chairman, the fourth word "track" is not clear. The Committee would like some slight information as to what is meant by "track substructure." We do not know whether you mean bridges, embankments, or whether you mean the details of the track itself.

CHAIRMAN THOMPSON:—I think the Board means the structures under the track—bridges, culverts, and so forth.

MR. HULME:—Let the engineers talk about that.

MR. PHILLIPS:—Is not the intention to cover structures above the track? Is not the intention more to the right of way substructure and superstructure, for instance? For instance, a highway crossing over the track would probably come under that discussion.

CHAIRMAN THOMPSON:—You would substitute the right-of-way instead of the railway tracks.

MR. PHILLIPS:—I do not pretend to know your mind, except I do think that you mean superstructure. I do not think you want to deal with ballast and the roadbed embankment, but I think probably other structures are intended.

MR. HANSEL:—Could we not simplify the case by cutting out the word "track." That would make it broader.

CHAIRMAN THOMPSON:—I understand Mr. Phillips suggests right-of-way instead of railroad track.

MR. PHILLIPS:—Yes, sir.

CHAIRMAN THOMPSON:—Right of way substructure?

MR. PHILLIPS:—Yes. That was simply a suggestion. I was trying to find out the meaning rather than to make a suggestion.

MR. JONES:—The details are to be shown on the profile. How the profile is to be made up is outlined on pages 14 and 15, and if there is any misunderstanding about just what it meant, by referring to the proper paragraph you can easily ascertain what is wanted on the profile.

MR. HULME:—Under "materials," our recommendation is to strike the word "lithographic" from the paragraph and make the paragraph read: "By such a print process as is approved by the Commission."

That suggestion is not made by reason of any misunderstanding of that requirement, but merely as an excess of precaution, both to the Government and to the carriers, so that we cannot be put in a position where it may be an absolute impossibility to comply with the intent on account of a control of the process of reproduction in a manner whereby the carrier could not secure the use of it upon reasonable terms.

CHAIRMAN THOMPSON:—The word "lithographic" has been used, not in accordance with its generally accepted definition, but in its broad sense. We think it includes the processes from which these records will actually be made. It does not necessarily confine itself to prints made from stone, but prints made upon any other material—gelatine, even, can be defined as lithographic. The term is used in connection with a gelatine process. However, the Board will consider your suggestion.

MR. WENDT:—It will help us if you will state how your Committee regards the gelatine process.

MR. HULME:—The investigation we have made has created a most favorable impression upon the Committee, and unless obstacles are placed in the way of the free use of that process, we believe it will be very advantageous to the carrier and a very much more general use of it could be brought about. The Government has finally indicated that it desires to have a permanent record on cloth, and, as this process seems to afford a method of furnishing such maps to the Government, we are perfectly willing to comply with the requirement up to such time as it may be impossible for us to do so upon reasonable terms. The Government would not expect us to do it upon other terms.

MR. WENDT:—What obstacles could arise in the way of the free use of that process?

MR. HULME:—The possibility of its being controlled by patent, and if that is so, the issuance of an order by the National Government would create such a demand for the use of the process that all the carriers would not be able to get the prompt use of it upon anything like reasonable terms.

MR. WENDT:—Our investigations did not develop any information that the process was patented. We understand that the process is somewhat of a secret, but that it is not patented.

MR. HULME:—It has been the experience of railroad men that patent rights develop at the most unexpected moments. The blue print paper necessary for the first print is a patented article made abroad and can be only purchased through one agency in this country.

MR. WORLEY:—It is being made in New York without any protection whatever as to patent. One man is sensitizing his own paper, according to his own statement.

MR. HULME:—That is very helpful information, Mr. Worley, but it is in itself not sufficiently conclusive to remove my objection, because one man will scarcely be able to make—

MR. WORLEY:—It was not offered for that purpose.

CHAIRMAN THOMPSON:—I think the Board appreciates your suggestion on that point, Mr. Hulme.

MR. HULME:—On page 10, under number seven, "scales," we suggest that you strike out "provided the scale adopted shall prevail over not less than one valuation section." We appreciate the thought that prompted you to put that in, that there should not be variations of scales, within a limited territory, and yet your consideration of the application has convinced us that there must be a variation and that you will be the first to grasp the thought that such should be the case. In order to obviate capricious exceptions being made to your rulings, we suggest that you leave that out. It is not particularly important from our standpoint whether you do or not, because we feel that you will be forced to modify it.

MR. WENDT:—Going back to No. 6. I understand you have no objections to that. On a former occasion your Committee suggested that the right-of-way map and profile be combined. I would like you to state the advantages and disadvantages of the combined map and profile.

MR. HULME:—Mr. Wendt, I am very much obliged to you for offering me an opportunity to sit down. I am going to ask the engineers to discuss that feature with you.

MR. WENDT:—Is there any economy in the combined map and profile?

MR. KITTEDGE:—There is an economy in a combined map and profile with a limited length of profile, covering only four miles of track. There is an economy and there is better use of the profile if it is a map showing right of way and alignment. It saves considerable printing; it saves printing at the bottom of the profile the indications of the alignment, and other things that are required there; it saves printing in the title; it saves printing in the specification; and it saves a good deal of paper and a great many drawings.

MR. PHILLIPS:—I want to be entirely impartial, Mr. Chairman, but I wish to show you that there is not any very great set of public sentiment in our Committee which would tend to make us criticize your statement in that respect. When we come to the disadvantages of it I would like to be heard. One is that a spoiled drawing in one part spoils the whole drawing both in original con-

struction and in reproduction. The second is, easy handling is much better accomplished when smaller sheets are used, when you are interested only in the profile, or only in the map. The saving in the printing is rather problematical, because you would order them to print a certain four miles, and unless you specifically cautioned them they would print both the map and the profile, when you probably wanted only one of them.

The saving in title is a distinct saving. Aside from that, I can see very little to criticize in the Committee's specifications.

CHAIRMAN THOMPSON:—That is a matter that some of the members of the Board have tried to convince Mr. Wendt about, but did not entirely convince him. Is there any one of the engineers that would like to enlighten Mr. Wendt?

MR. HOLBROOK:—I am decidedly in favor of having them on the same sheet. I do not know that we have any reasons other than those mentioned by Mr. Kittedge: convenience, economy, filing and the saving of work that would otherwise be required at the bottom of the profile. Having it all there on the plan in completeness is worth a good deal. It is true that if you want to carry it around in the field for the purpose of using the profile it is not necessary; but as a rule if a man in the field needs one he needs the other, and in that case it is handy to have it all on one sheet. I do not think the Committee thinks there is anything vital about it, but the majority of the Committee I think are decidedly in favor of putting it on one sheet, if the Board should so decide.

CHAIRMAN THOMPSON:—May I ask what percentage of your present alignment maps have profiles also?

MR. HOLBROOK:—None.

CHAIRMAN THOMPSON:—It has not been the general practice to do that?

MR. HOLBROOK:—I have had it on other work, but not at present. None of our lines have, that I know of.

MR. CHURCHILL:—The discussion has taken the line with regard to work to be done in the future on maps and profiles. You are to bear in mind that in the construction of extensions to right of way as compared with extensions in the sense of second, third, fourth and other tracks, if you will take the records of progressive railroads in the country, you will find that there is ten times or fifteen times, I should say, more work being done and recorded in the nature of second, third and fourth tracks than there is of extensions of right-of-way.

Now let us picture in our mind the kind of profile we will get of the second track or the third track. It is more of a picture than anything else. It is a profile along the slope and it gives very little information. It has a certain use. You can make a picture on that profile of the general position of some culvert or some bridge, but beyond that it is of little value.

If you have that paper separate from the map, I think it becomes of even less value. A great many of the additions made to property of this character you will find have been recorded in profile form on the map itself; and personally I believe that the saving of any duplication of work is an important thing in establishing standards. I know many of our Committee who discussed it from the beginning felt that if they were required to have the profile on the map, that it might mean some additions on existing maps. Nevertheless they thought, with others, that the saving in filing and the saving in certain work of putting down information on the file maps was worth taking note of. One of the Board recently suggested it at a time when we were not really prepared to discuss it, Mr. Jones, I believe—and we took very kindly to it.

CHAIRMAN THOMPSON:—Has not the Committee looked upon this rather as a money-saving device rather than getting the Commission a record here that was practicable and for practical use. Isn't it a fact that very few of the railroads have ever combined the maps and profiles and is it not objectionable to have the map attached to the profile for field use?

MR. CHURCHILL:—If I had a profile on the bottom of a drawing and I wanted to use the profile distinct from the map, it is a very easy matter to either fold the map and make it just as

narrow as desired for that purpose—that is, I mean fold the map in order to go into the field; or cut off the profile.

CHAIRMAN THOMPSON:—When you cut the profile off, of course you cut the alignment notes off with it.

MR. CHURCHILL:—Yes.

CHAIRMAN THOMPSON:—Let me ask you to what extent you have combined the map and profile?

MR. CHURCHILL:—I think that seventy-five per cent. of the new construction work we have done in the last fifteen years—I am referring to side tracks, sidings and the reduction of grades—has been platted with the profile and map together. The improvements that have been made in the State of West Virginia—costing more than the original road—have been shown in that way. All the improvements in the State of West Virginia have been shown on drawings in that way. That has been going on for ten years, the combination of the profiles and maps. I do not think that is an argument, but I simply want to show that it has been used as a matter of convenience. Those maps would not be as narrow as this twenty-four inches, you understand—

CHAIRMAN THOMPSON:—Have you ever thought about this case. Suppose in connection with some improvements it was necessary to file a map and not the profile, or the profile and not the map. If this were done, you would have to duplicate both, instead of duplicating one.

MR. CHURCHILL:—I cannot conceive of any possibility of that occurring. If the profile has once been made and records work therefrom done, the addition of some other track or building on the map would not necessarily change the profile.

CHAIRMAN THOMPSON:—I mean you would have to file a duplicate of both when it was only necessary to file a duplicate of one.

MR. CHURCHILL:—As a copy of the entire map; yes.

MR. SEDDON:—I think the difference is in the roll and the sheet. It seems to me that when you come to the method of sheet filing, then the question of putting the profiles on the sheets becomes a reasonable thing. I believe that every railroad that has its records in sheets puts the profile and the alignment on the right-of-way map. When you do that it is very advantageous to have the profile and the alignment map together. I think you will find, with your method of filing, that it would be advantageous to you in the end.

MR. SMITH:—I merely wish to add some remarks to what Mr. Phillips has said, and to bring out further that in case there is a change in either the map or profile that it would necessarily mean a change on the entire map, whereas if they were separate the change would mean only one of them. It would be less expensive. I doubt, in the case of the lithographic process or the printing, as we have suggested, whether it would not mean a great deal more expense. I doubt if we could print the map and then print the profile. I am not sure as to that. We might have to make up our sheets with the profiles on them.

In answer to Mr. Seddon:—He said that probably where the railroads had used sheets, that they used the profile on the bottom. Unfortunately on our line we have an entire alignment made up in sheets, not on tracing, but on hard copy—that is where it is unfortunate—and they are bound together in books. We have never used the profile in that way in any case and I think it would be very unfortunate to use it in that manner.

MR. HULME: You notice we did not raise any question about that. If you had difficulty in subduing Mr. Wendt, imagine the difficulties on this side of the table. (Laughter.)

CHAIRMAN THOMPSON:—Mr Hulme, do you think you can now close up your discussion as to the specification?

MR. HULME:—I can do so if I am permitted to do it.

MR. JONES:—Just before you pass that, Mr. Hulme, under the item of "scales" you suggested that we cut out the words "providing the scale adopted shall prevail over not less than one valuation section." Have you a substitute that you wish to suggest for that?

MR. HULME:—I do not think any substitute is necessary.

CHAIRMAN THOMPSON:—You would just eliminate that portion of it?

MR. HULME:—Yes; we would just eliminate it.

MR. JONES:—That may get us into trouble that we would like to avoid. One mile of road might be made on a scale of two hundred feet; the next one on four hundred feet; the next one on a hundred feet; the next one on fifty feet, when they could all have equally as well been made on one uniform scale.

MR. HULME:—My comment was merely suggestive. It may be that you still want to retain those words.

In regard to the profiles, we would suggest that it would be very advantageous under some circumstances to use Plate B, which would be on a scale of thirty feet.

Turning now to indexing. We have suggested that the index map should be made on a scale of one quarter of an inch. It is our judgment that an index map made on the scale of half an inch would prove too large. We again submit to you the advisability of making it a quarter of an inch. It makes no great difference to us, but we believe that for people who are not as well acquainted with the property of each carrier that the quarter inch scale would be better.

We have no further suggestions to make on that page or on page 12.

On page 13, under A, second line, the word "occupied," should unquestionably, from our standpoint, be changed to "owned," thereby complying with the words of the Act. In the last sentence of the second paragraph under what shall be shown on the right-of-way, we would like you to strike out the following: "The schedule shall also refer to leases of land made by the company to others for terms of one or more years." These things are so varied that to put them on the maps which are to constitute your permanent file would only be misleading in the future, and would only mean an expense in making the changes. If such information is desired, we think it would be very much better to have it provided in the following wording, which also applies to the previous schedule, as to the method of acquisition of property: "This schedule may be on a separate sheet or on the map, at the option of the carrier." This will avoid—I was going to say the changing of the maps of the carriers, having forgotten for the moment that we are only considering it in its application to future work.

CHAIRMAN THOMPSON:—You refer to the whole schedule?

MR. HULME:—Yes.

Under the heading "Boundary line of detached lands"—

MR. JONES:—Pardon me for interrupting you. With the schedule on a detached sheet, is it your idea that you should do that by typewriter on paper, or how would you give the schedule on separate sheets of tracing cloth required by the specification?

MR. HULME:—The method of furnishing it in typewritten form would be very much more economical. If possible, we had in mind that we make an impression thereof on the gelatine on the blank space on the map. That is the reason I suggested a separate schedule. We desire to avoid the expense of putting that detail lettering and numerals on by draftsmen.

MR. SMITH:—I would suggest that we could take a blue print of the typewriting. You could take a carbon sheet and put it on the back of a thin sheet of paper; you can typewrite it just as well as not, and then take a blue print of this and in this blank space on the gelatine you can put this blue print. The men who examined it for our side said that they thought that could be done, and it would be shown on your tracings, just as well as not.

CHAIRMAN THOMPSON:—That is in case we use the printing process?

MR. SMITH:—Yes.

CHAIRMAN THOMPSON:—I think that is true. I do not think there will be any objection to it.

MR. HOLBROOK:—I had no idea what you would likely be to run up against in new work, but I will say that in the valuations that I have made that I have probably seventy-five pages of the

size of my large form covered with those very things. While some of the leases may be for less than a year, most of them were of the indefinite kind. If we put what I have on the maps it would take a draftsman a year to do it.

MR. HULME:—What Mr. Holbrook has said is the unanimous view of the Committee, and that is the general condition of the carriers in that respect.

MR. JONES:—What I am seeking light on is whether or not you had the idea of making separate detached gelatine sheets, or whether it was your idea to make a standard size of these sheets and file them with the right-of-way maps. I have in mind an instance that I saw the other day where there was not room on the right-of-way map to place a schedule on account of the immense number of small parcels of land that had been purchased, and the carrier had made up a separate sheet, or proposed to make up a separate sheet. In that case it seemed the only practical thing to do. But in a case where the schedule is small and the tracts of land would not be numerous, three, four or five to the sheet, it does not seem to be any great burden to have the draftsman do that.

MR. HULME:—I think you have expressed it properly. Where it could be put on the map readily, I have no doubt that the carriers would do it as being the better and more economical thing to do. But in a case where there might be twenty-five or forty items to be set forth it would be impossible to find space on the sheet for it, and it would be always a great saving of money to typewrite it and send it along with the sheet.

CHAIRMAN THOMPSON:—Is it your idea that the carrier will take advantage of the option which you suggest and place these things on the map whenever it is practicable?

MR. HULME:—I think the carrier would. Certainly that was the sense of the discussion in our committee, that even where the list of conveyances was a long one, if practicable, they would print it—that is, they would get an impression on the gelatine—so that the copy furnished you on tracing cloth would contain on one sheet all the information you desired.

MR. JONES:—That would be in line with the specification.

MR. HULME:—The only reason that we provided that it might be separate was the very strong conviction that it would not be always possible to place it on the sheet, that is, that there would not be room for it. It is merely the question of the practicability of carrying it out, and not that you should not have the information.

MR. JONES:—Your suggestion is simply to frame this so that the carrier will understand where there is not space on a sheet to get these transfers on, that it may put them on a tracing cloth, a standard size sheet, and file it with the right-of-way map.

MR. HULME:—In addition, Mr. Jones, there is nothing in your specification to indicate that the carrier would not have to make this very long list of conveyances, say forty conveyances by draftsmen. We want it to appear that that sort of information can be put in on some other way, provided the information appears upon the map.

CHAIRMAN THOMPSON:—I understand that you will be permitted to use any other process that you desire. If you should typewrite them and then have them printed upon the map through the lithographic process, it would meet with our specifications, I think.

MR. HULME:—Before we leave that paragraph, I feel that the Board is entitled to some explanation concerning our request for the elimination of the schedule of leases. They provide that we shall put on that map a schedule of leases for terms of one or more years. I suppose, and in fact I know, that the number of these leases is very much greater than the Board have any idea of. In some cases it would occupy a large amount of space upon the map. If I may use the term, it would clutter up the map and I do not see where it would serve any useful purpose to the Board. It is a constantly changing form of information. The leases for a year are renewable and changeable; they cover land used by the small shipping facilities placed under the control of some individual shipper. I do not see the use or purpose it would serve in any way. It is an introduction in rather a new way of the subject for the first time, and it is for that reason that I dwelt upon it

at some length. It perhaps grew out of a suggestion that we made to the Board in our answer to the effect that the information that they did require should be limited to leases to the company and not leases from the company. Of my own knowledge, on the Pennsylvania Railroad Company, there are some 12,700 of these.

CHAIRMAN THOMPSON:—To what extent do you think such property that is leased should be included among property that is used and owned. That is the point you are making, is it not, that it is not proper to show such land as you lease as being owned by you?

MR. HULME:—If I can state my understanding of that inquiry it is that where the carrier has leased this land under these short time leases—

CHAIRMAN THOMPSON:—For a year?

MR. HULME:—A year would be a short time.

CHAIRMAN THOMPSON:—We would call that a short time lease.

MR. HULME:—These leases are mostly in connection with some shipping facility. If you should attempt from the lease to construe that that land is not being used for railroad purposes you immediately raise a question on which we differ absolutely.

CHAIRMAN THOMPSON:—I think perhaps the objection may be based upon that point.

MR. HULME:—The objection was based not only upon the number of such leases, but also upon the possibility that it might be the intent or thought of the Board that such property is not used for railroad purposes. I suppose ninety per cent. of such leases are on the right-of-way and carriers permit them to be used temporarily; perhaps in the case of some section man who is raising a little salad and a few potatoes. If we are up against the possibility of a construction that such land is not within the purview of this act, we would like to know it, so that we can quickly cancel those leases.

MR. JONES:—Mr. Hulme, regardless of how this matter will be construed, and of course the specifications do not attempt to construe many knotty problems that will arise in connection with land that is used for railroad purposes or otherwise. We are after the facts, and the leases themselves will have to be evidence as to whether or not the land is used for railroad purposes. But how are we to obtain the fact that it is leased at all, unless we require you to give a schedule of the leases.

MR. HULME:—If you mean that the occupancy by others of any portion of our property under any circumstances, irrespective of the importance of that lease, is a proper subject of inquiry and consideration by the Government in connection with making the valuation of the property of the carrier, then you must have that information and you can only get it from us. But I do not see that you should stop to consider that phase of the subject. I do not see where you would ever stop if there were not some circumstances where the permanency of the occupancy is well evidenced by the character of the structure or the use that is made of it; but as you have worded your provision here, you will only burden yourselves with the examination of hundreds of thousands of incidental uses which will not affect your conclusion.

MR. JONES:—The Act burdens us with that duty. We are not burdening ourselves. The Act says that you shall show separately a list of all parcels of land not in use for railroad purposes. We cannot list them separately unless we know the conditions of the leases and just what the condition of occupancy is. It may be on your right-of-way and it may be under such conditions that it is not used for railroad purposes. It may be off the right-of-way—taking the usual meaning of the right-of-way—and some of them may be on adjoining or detached land. Yet the term of lease may be because of several reasons. It may not be self-evident at all, or the fact that the term of the lease is short may not be *prima facie* evidence that the property is not used for railroad purposes. But it is not our purpose here to interpret or to attempt to say all that shall be interpreted, because that is a matter beyond the province of the specifications. Certainly as to how these various leases shall be interpreted is beyond that. What we want are the facts as to the leases.

MR. HULME:—I quite agree with you that it should be beyond the province of map specifications to interpret those matters, and it is for that reason that we suggest that you eliminate the sentence.

MR. CHAIRMAN, I think we have unintentionally drifted into a phase of the subject which cannot be settled at this stage, and it would be much better to defer a full discussion of it. We would be very glad indeed to give you full information in that connection with the idea that what you would learn from us would be of great practical value to you when you come to an inventory of this property. And it is quite possible that we would differ with you as to principle, and I am not attempting to discuss the principle now.

MR. THORNE:—If there should be such a discussion our States Commission would like to participate in it, because there are hundreds of leases in our State that are important.

MR. HULME:—I think it would be very helpful to have the State Commissions participate.

CHAIRMAN THOMPSON:—The purpose of requiring that information to be stated on these maps was to more fully inform the Commission as to the uses of the property, and it is necessary to discriminate between property that is used for railroad purposes, and property that is not used. Where these leases run for period of a year or more, then you could clearly say that the property is devoted to other uses. It depends upon the character of the lease, I understand, and it raises a very nice question.

MR. HULME:—But coming as it does, Mr. Chairman, under the paragraph relating to right-of-way, it seems to us to be particularly badly placed. Our right-of-way is acquired and held for railroad purposes. If we, in connection with a shipper, permit it to be used by one man exclusively, making to that man a proper charge, and the Government says we shall do that, then another branch of the Government service turns around and says that we are penalized, then you are going to create a condition under which the carriers cannot permit a shipper to have the exclusive use of the land, because it is only the exclusive use of it that would justify you in considering that it was not used for railroad purposes.

MR. WENDT:—What proportion of the leases are made for a period of one year and over or are made for a period of less than one year?

MR. HULME:—The practice varies very greatly in different sections of the country. In congested districts where there is a possibility of the carrier always wanting the property for its own purposes, it is the custom to limit the term, except where it is used for the construction of some costly improvement, but in the other sections of the country I think it is the custom to make the leases for a considerable period.

MR. WENDT:—These specifications speak of leases extending over a period of one year or more. It is evident that in order to ascertain all of the facts about the leases, we would have to resort to the inventory method of getting a complete statement of the leases.

MR. HULME:—If you provide that the information you require should be gotten through the inventory method, you will be coming to our way of looking at it. We merely suggest, and do not insist, that when you come to the method of getting information by inventory you will find it will be better for you to name a longer period than one year, say five years.

THE CHAIRMAN:—If you desire to discuss this point any longer, I think we had better adjourn for lunch. We will take a recess until two o'clock.

(Whereupon at 12.45 o'clock P. M., on the 14th day of October, 1913, a recess was taken until 2 o'clock P. M.)

AFTER RECESS.

Met at 2 o'clock P. M., pursuant to the taking of recess.

CHAIRMAN THOMPSON:—You may proceed, Mr. Hulme.

STATEMENT OF THOMAS W. HULME (Continued).

GENERAL SECRETARY, PRESIDENTS' CONFERENCE COMMITTEE.

MR. HULME:—When we adjourned, we were discussing this information with reference to leases from the company. I am not quite sure whether I made clear the views of the carriers in that connection, so that I will say again, the carriers are perfectly willing to furnish the information as to leases, if, in the judgment of the Board, they should desire it.

Our objection is solely to placing it on the map.

Proceeding to "Boundary lines of detached lands," Section 1, "lands owned and used" should, in our judgment, be changed to read, "lands owned or used"—thereby meeting the requirements of the Act that there should be valued the lands we use as well as those we own.

Considering now, on page 14, paragraph (g) "Improvements": Considering it in its application, as we are, to future construction, we should doubt the advisability of requiring that signals should be shown upon the map. Separate plans are usually prepared therefor.

We also doubt the advisability of putting on the general data as to dimensions, and in lieu thereof would suggest as an addition at the end of that paragraph: "That in all cases the data above-mentioned may be set out and confirmed in a separate schedule."

One of our reasons is the difficulty of showing it clearly, and there is the difficulty of showing too much detail on the map. There is no objection to giving the information.

MR. WENDT:—What is the objection to showing the signals by conventional signs?

MR. HULME:—I do not think there is any objection when that is done for future construction. Our objection applies to the present map.

CHAIRMAN THOMPSON:—What portion of paragraph (g) do you propose to cut out, and in lieu thereof substitute the sentence which you gave?

MR. HULME:—As we are considering it now, Mr. Chairman, with reference to the preparation of maps for future construction, I think the carriers can comply with all that section as drawn. But it is the view of the carriers that it is difficult to show all that detail clearly upon a map; therefore we have suggested we would give it in a schedule attached. So you will see our position is not an unwillingness to furnish the information, but there is a difference of opinion as to the possibility of showing it clearly on the map.

CHAIRMAN THOMPSON:—That refers to all of the information called for?

MR. HULME:—That refers more particularly to signals, in our minds. We question it with reference to railway structures, we question it as to dimensions and all the following portions.

CHAIRMAN THOMPSON:—That is the point I wanted to get at, as to whether you included the remainder of the paragraph.

MR. HULME:—Yes, sir.

MR. WENDT:—In looking over your maps we found in many instances that the present practice is to show the location of a signal cabin, the location of signal bridges, by conventional signs, the location of the signals themselves by a dot, or some other sign. What objection is there to that? It seems to be the general practice to-day.

MR. HULME:—I should hardly call it the general practice. Did you find that to be the case in congested districts?

MR. WENLY:—As far as we have investigated, we find that to be the case in congested districts, as well as in districts which are not congested. We do not say that is the practice over one hundred per cent. of the territory, but it is a common practice.

MR. HULME:—We are looking at it somewhat from the standpoint of its utility. We are discussing the application of these specifications to maps for future construction. Therefore it is not possible for the carrier to say it cannot do it, because it can. Accordingly we come to the consideration is it worth while to do it? It does not seem to us that it is; but if the Board should decide it is necessary I do not think there is any question but that the carriers will comply.

CHAIRMAN THOMPSON:—May I ask if the schedules to which you refer include the inventory?

MR. HULME:—An inventory, if we are asked to furnish one; and if we are not asked to furnish one we would give it in this detailed information by a schedule which would be attached to the map.

CHAIRMAN THOMPSON:—I was interested to know what kind of a schedule would be furnished in case it was not in the form of a regular inventory of all property. What form would this be furnished in, if you simply furnished it as a schedule?

MR. HULME:—Practically in inventory form.

CHAIRMAN THOMPSON:—If such information were furnished in a schedule, detached from the map, it would be difficult to check it, or associate it in some cases with the structure on the ground. Such property should properly appear in an inventory. I did not know whether it is your intention to associate the word "schedule" with the inventory.

MR. HULME:—Not necessarily. Some of that information exists completely in separate plans. Take, for instance, signals. It is the practice to make complete signal plans. The information necessary in that connection we would get from them. To attempt to work that out in any way upon this so called right-of-way and track plan, would simply be a duplication leading, as we think, to confusion.

I will proceed. On profile, paragraph (b), there is some doubt in our minds as to the meaning of the term "roadway." We wondered whether you meant "roadbed" structures, and yet after the consideration of it, it was plain you had used the word "roadway" under (a). Just what is it you desire there?

CHAIRMAN THOMPSON:—I will ask Mr. Jones to explain that.

MR. JONES:—Under (b), you say?

MR. HULME:—Yes, (b), on profile; the second line.

MR. JONES:—We mean any structure that is not listed there. There are probably numbers of miscellaneous structures that form a part of the roadbed, that are not listed here.

MR. HULME:—That is, such things as would form a portion of the roadbed?

MR. JONES:—Yes, anything below sub-grade, as we have heretofore said.

MR. HULME:—Roadbed would be a narrower term than roadway, would it not? Would it not therefore be well to substitute roadbed for roadway?

MR. JONES:—It might be somewhat disconnected from the roadbed, but still be a part and parcel of the railroad property on the right-of-way. Roadbed we usually look upon as from toe of slope to top of slope. There may be some protection walls for drains along the side and somewhat detached from the roadbed proper.

MR. HULME:—Your explanation of what is desired is important as showing just what is expected of the carrier. With these new maps it is possible to show it.

MR. JONES:—Our idea is to show just as much in a vertical projection, as we can, of physical property owned by the railroad; and that is just about as clear a general statement as I can make.

CHAIRMAN THOMPSON:—It is not our intention to apply it to station houses and depots.

MR. HULME:—That is not the intention?

MR. JONES:—Oh, no.

MR. HULME:—Or to any other structures of that character?

MR. JONES:—No.

MR. HULME:—Which might be included under the general term "roadway"?

MR. JONES:—No.

MR. HULME:—Now, under (c), "quantities," in the third line the first word, "below"—"below sub-grade"—is that what you mean, or do you mean "to sub-grade"?

MR. JONES:—We, of course, do not mean below sub-grade.

MR. HULME:—You will change that?

MR. JONES:—Yes. It means sub-grade as a base line. If it is a cut, it is above sub-grade.

MR. HULME:—On page 15, Mr. Chairman, "Alignment and track," where you come to "other data such as passing tracks, depot buildings, water and fuel stations," as you have provided that should be shown upon the right-of-way map, it seems to us an unnecessary duplication that you should require it again upon the profile. Some profiles do show it; some do not. We suggest inserting before "other data" the permissive word "and may show other data such as," and so forth.

MR. JONES:—Our idea there was not that we should have that in detail, which is shown on the right-of-way as track map, but such prominent passing tracks, or large depots should be shown, which would assist the man who took the profile out in the field, to interpret it by having a few such items shown along the line.

MR. HULME:—Locality, location; the mile posts do that.

MR. JONES:—He would not want to walk a mile to find a mile post.

MR. HULME:—Then such information as would enable you to find it?

MR. JONES:—Yes; not that it should be in complete detail.

CHAIRMAN THOMPSON:—It is a modification of the former requirement, which required virtually the plotting of everything. It is limited now to the principal features.

MR. HULME:—As a matter of precaution the Committee respectfully requests that before the final adoption of these specifications—that they should be given an opportunity to examine the illustrative drawings, as it might be possible they would disclose some different view of the specifications than has been understood by the Committee in its conferences. I take it you will be disposed to afford us that opportunity.

That is all I have to say, Mr. Chairman.

In connection with these specifications, as to future construction work, it may be possible some members of the Committee desire to add some further comments in connection with it.

CHAIRMAN THOMPSON:—The application of these specifications to other than new railroads is set up in page 5, the introductory statement. Is that entirely clear, Mr. Hulme?

MR. HULME:—It is certainly clear as indicating when you issued it that you intend where there were no maps, that these specifications should apply in their fullness to existing construction, where the carrier does not have maps. But this Committee would like to submit to you that it is not possible to obtain some of this information for the constructed lines.

MR. WORLEY:—That has been repeated here several times. In the making of these specifications, would it be possible to bring about the impossible? We do not intend these things to be impossible.

MR. HULME:—I assumed, Mr. Worley, that we were now coming to a consideration in what respect they would be impossible.

MR. WORLEY:—It is not our intention to request anything that is impossible. They have been given such a narrow interpretation this morning, all the way through. We do not intend to ask the impossible. We would rather have the broad common sense view of it. If you would give it that interpretation, it would express our meaning so much better.

MR. HULME:—Was not our view justified by your words "No modification of standards will be permitted"?

Mr. WORLEY:—No, I do not think so.

Mr. HULME:—Standards were not to be construed as specifications.

Mr. WORLEY:—It would certainly apply to these things which are possible. It would not apply to things which are impossible—to make them on uniform sheets, for instance.

Mr. HULME:—It is possible you have furnished me with a clue. Your introductory statement shows no modification of standards will be permitted on No. 2 maps, and profiles of existing railways, where no record now exists. If the word "standard" is not to be confused with the fullness of these specifications, it would indicate plainly your intention not to require it. But we did not take "standards" as not meaning "specifications." We took all the specifications as creating the standard.

Mr. WORLEY:—Yes. But you have repeated this morning the word "impossible;" you have said there were so many impossible things. I do not think that is correct.

Mr. HULME:—Let us turn to the consideration of what will be impossible.

Mr. WORLEY:—We do not intend to ask anything impossible. We would like to have that stricken out.

Mr. HULME:—That is what I thought we were about to take up, as suggested by the Chairman that we consider the application of these specifications to existing lines.

I do not think in that connection it is necessary to consider anything before what occurs on page 13—that is, the data required—because the size of the sheet and the scale having been provided and the general features agreed upon, we have only to consider what is possible, or rather, what is impossible, to provide.

As I understand it, and if I am not correct, the members of the Committee will straighten me out, page 13 relates to what should be shown practically for land lines. All those things it is possible for the carrier to obtain and put on a map.

I submit it is a question for the Commission, for the Board, to decide as to whether it would be equitable to require more from a carrier that,—because perhaps of shortness of funds,—has not been able in the past to create such maps, as more fortunate carriers have been able to make; to require of them now anything in these specifications, for a constructed line, that is not absolutely essential in connection with valuation work. And I let all on that page rest with that comment.

CHAIRMAN THOMPSON:—With regard to land subdivisions, before the Commission could check up the land, is it not essential that it have a complete land map showing the different tracts? In other words, the information that is required on page 13?

Mr. HULME:—Yes, and that is what I intended to say; that for existing lines the carriers should be able to substantially furnish the information on that map.

CHAIRMAN THOMPSON:—All right. I did not understand.

Mr. HULME:—It should be afforded the opportunity of presenting it in the most economical manner possible. Where it can be shown by schedule, typewritten schedule, it should be permitted to do that rather than by placing all these schedules upon a map. I am really trying to make it just as equitable for all existing properties, for the carrier that has not the map as for the carrier that has the map, but does not show that particular information on the map. There should be no difference in the treatment by the government between those two.

Mr. WORLEY:—Do I understand you to say if they have no land maps, that they should be permitted to furnish it only in a schedule?

Mr. HULME:—No, sir.

Mr. WORLEY:—You do not?

Mr. HULME:—No, sir.

Mr. WORLEY:—The only objection is to putting the schedule on the map; outside of that the rest of the information you think should go on the map?

Mr. HULME:—Yes, sir; the schedules. That is what we object to.

Mr. WORLEY:—The only thing you object to on page 13 for existing roads is placing the schedules on the maps?

Mr. HULME:—I think that would be right.

Mr. WORLEY:—I wanted to get that straight.

Mr. HULME:—Don't you think so?

Mr. LUM:—Yes.

Mr. KITTREDGE:—I should say wherever the information is in the possession of the carrier.

Mr. HULME:—I wanted to get the sense of the Committee, and the answer is yes.

CHAIRMAN THOMPSON:—That does not differ from your previous objection in the case of new lines; you object to putting the schedule on the map in that case.

Mr. HULME:—It does not differ, no, sir; it is the same.

CHAIRMAN THOMPSON:—The same objection?

Mr. HULME:—Yes. Shall I proceed?

CHAIRMAN THOMPSON:—Go ahead.

Mr. HULME:—On page 14, merely for the purpose of explaining our attitude in its application to existing lines, where there are no maps, I would simply refer to (f), on page 13, and say we believe the carrier should show the tracks.

When we come to "Improvements," (g), on page 14, we do not think that for existing lines, where there are no maps, you should go any further than tunnels, on the third line; that the new maps to be made for existing lines, would show, "station and office buildings, shops, engine houses, fuel stations, water stations, etc., in general outline where it can be done clearly; bridges, trestles, culverts, tunnels;" but because the existing maps of the carrier will not show in most instances the remaining items, we do not think you should require the carriers who have no new maps, and who have to make the greater outlay, to place that information on their maps. The remaining items to which I refer are retaining walls, cattle-guards, fences, mile-posts, etc.—all the rest of that paragraph.

CHAIRMAN THOMPSON:—When the carrier is making a survey of its lines, it can just as easily get this information; and what is the objection to putting it on the map and profiles, after this information has been secured? It can easily, we should say, be secured in the cases of the other railroads you mentioned whose present records do not have this detailed information, but whose records might be otherwise satisfactory. In that case it would be necessary for the carrier to go out and make a survey just for these special items of property, such as retaining walls, cattle-guards, fences, and things of that kind.

Mr. BYERS:—I would like to ask whether it is the intention to keep the data on these maps up to date, with regard to the information asked for.

CHAIRMAN THOMPSON:—In additions and betterments?

Mr. BYERS:—No, in any connection.

CHAIRMAN THOMPSON:—I cannot state definitely. I would say that in my opinion whenever another map was filed with the Commission it should be correct as far as possible; that if there were certain abandoned cattle-guards or abandoned fences, that they would be shown on any new map you might file. If you filed a new map for any purpose, if you filed a new map with the Commission in connection with additions and betterments, that of course should show the correct situation.

Mr. BYERS:—Suppose we added an additional cattle-guard at some point. Is it the intention on this map originally furnished that the additional cattle-guard shall be shown, or that we simply make a new map that shows the cattle-guard, and nothing else?

CHAIRMAN THOMPSON:—You mean when you add to your property a new cattle-guard?

Mr. BYERS:—Yes. Will we have to make this map over again and show everything that was shown before plus that additional cattle-guard, or will we have to make a new map which

shows simply the additional cattle-guards, or will there be no correction made, to keep this original map up to date in regard to that change?

CHAIRMAN THOMPSON:—Exactly what the Commission will require to be filed in connection with additions and betterments, we have not decided at this time; but there will be some record of that kind required to be filed in connection with your statement of its cost.

MR. BYERS:—It makes considerable difference from our point of view in regard to such matters.

CHAIRMAN THOMPSON:—I think it is obvious the Commission would not require you to file a new tracing simply because you had added a new cattle-guard.

MR. BYERS:—Where are you to draw the line?

CHAIRMAN THOMPSON:—I cannot say at this time. We will try to be practicable, and at the same time keep the Commission advised as to what is established.

MR. CHURCHILL:—The same point comes up in connection with the telegraph and telephone lines, and lines connected with the signaling. Poles are constantly being moved, for one purpose and another. Slides and wash-outs, all sorts of conditions, change the positions of those poles and the arrangement of them, and destroys your map, so far as it may indicate there is such a thing as a telegraph pole or power line on the ground. We think these minute details are inappropriate to be put on a map; that they had better be put on an inventory schedule where everything can be shown.

CHAIRMAN THOMPSON:—Would not you have to change the schedule?

MR. CHURCHILL:—That is a simple matter, to change the schedule.

CHAIRMAN THOMPSON:—I would say then, that the map, in any case, can be considered as correct of its date. If we were trying to associate property shown on the map with property on the ground, we would have to look at the date of the map. If, for any purpose, you filed an additional map at any time, that map in its entirety would show correct as of the date it is filed. In case you abandoned a cattle-guard or a fence, or changed telegraph poles, or did something for which you gentlemen make an addition and betterment report, then in that case I would say it would not always be necessary to file another map. Simply because you abandoned a cattle-guard would not mean you would file a map or even a record of it with the Commission.

MR. SEDDON:—In the case of a railroad that has no maps, and goes out to get them, do you not think that would involve a considerable extra cost for them to get information about these details in such shape as to put them on a map, rather than to make a schedule of them as they go along? It seems to me, as to these gentlemen who have maps and who have not got this detailed information, that it might be considered that they could furnish it on a schedule, because they do not have to go out and get this information, that it would not be quite fair for those who have not got the maps, to require them to get such detailed information in the field as would enable them to put it on the map, when they could get the information at very much less cost and furnish it in a schedule.

CHAIRMAN THOMPSON:—I would say in connection with that, if you got the information at all from which you could make a schedule or an inventory to be filed with the Commission, that same information would enable you to show it on a map.

MR. SEDDON:—Not by any means; I do not think so.

CHAIRMAN THOMPSON:—You would have to furnish the Commission with a statement of its location, its size, its character, its dimensions.

MR. SEDDON:—All right.

CHAIRMAN THOMPSON:—You would not have to put any more information than that on your maps.

MR. SEDDON:—Take the size, for instance, of mile posts, and various things of that kind, which are standard. You would simply say so and so, and put them down in the schedule. In

the other case you have to measure the distance from your base line, and have to locate the thing in that way, so that you can put it down out of that. That is a very different thing from listing it in a schedule.

CHAIRMAN THOMPSON:—My idea of preparing a schedule would be that it would be necessary for you to give the location, in connection with the schedule. It would not be sufficient simply to go over your line and count the number of crossing posts, the number of sign posts you have, and so on.

MR. SEDDON:—I understand that. But when you get your center line, you can give the approximate plus, to locate it, but there is no necessity for locating the distance from the base line and the plus, so that you can plot it on the map.

MR. PHILLIPS:—In order to get the feeling of the Board, I would be glad to be advised whether it is their intention say in the case of a telegraph line extending on the right-of-way, to cover the actual location of the telegraph poles by stations and plot the distance out, or whether it is not entirely sufficient to indicate a telegraph line along one side or close to the right-of-way. And if the latter is true, if it does not serve very much the same purpose to say, "between such and such stations, on the south side of the track, is a telegraph line of the following description," and then you can enter into your description very considerably.

In other words, whether outside of station plats it is of sufficient importance in the location of these minor signs, such as telegraph poles and kindred facilities, to warrant their formal location on the map, at the cost of very considerable effort and probably changes, resulting in cluttering, to use a rough word, the map.

CHAIRMAN THOMPSON:—I would say so far as telegraph lines are concerned, I do not think it is the intention of this Board to require the location of every pole to be specified. The telegraph line could be indicated by some conventional sign.

MR. PHILLIPS:—Would it be improper to state in these specifications that the indication of a telegraph line is conventional. As it stands, it is very severe, and necessitates a great deal of survey for practically no real results.

MR. JONES:—Does not the clause in the specifications, which specifies they shall be indicated by the symbols of the American Railway Engineering Association, cover it?

MR. CHURCHILL:—Use the word "indication" at the point where Mr. Hulme draws the line.

MR. HULME:—If many of these things could be indicated rather than drawn, in a more illustrative manner, in a more brief manner, it would simplify it.

MR. JONES:—The specifications provide that where possible symbols used by the American Railway Engineering Association to indicate structures and other features, shall be adopted. A cattle-guard could be shown by some simple conventional sign; the same would be true of mile posts and other features. We do not propose that mile posts should be measured out in an exact distance to scale. If there is a square of some kind—I do not recall the exact symbol—that will do.

The telegraph lines indicated in a conventional way, simply puts the field and inspecting force on notice that the railway does own a telegraph line. We do not expect them to go over this right-of-way map and detail all that telegraph property. They will have to have other underlying representations for that.

MR. HULME:—I felt sure if we discussed this matter just a little, it would come out very clearly. Here are fifteen of what your chairman called highly intelligent gentlemen. If they could not grasp clearly that those things could be indicated instead of shown, it would be helpful if you would be good enough in your further consideration of these specifications to put in "indicate" where you intend those things should be indicated, perhaps a few thousand of other intelligent men might correctly interpret them without annoyance to your Board by frequent inquiries in connection with them.

MR. WENDT:—The signals would also be shown conventionally?

MR. HULME:—I would so understand it from what follows from what Mr. Jones has said.

MR. WENDT:—You would not object to showing signals then, would you?

MR. HULME:—We are speaking now with reference to existing construction where the carrier has no map.

MR. WENDT:—I understood you a few moments ago to object to the provision with respect to maps of lines to be constructed in the future.

MR. HULME:—Only because in the case of signals there are usually detailed signal plans which show those things far more clearly than they could be attempted to be shown on a map of this kind. That was all.

MR. WENDT:—The same remark applies to buildings of all descriptions; the same remark applies to bridges and all structures.

MR. HULME:—The point is not made with reference to new construction. I am making the point now only in connection with existing properties where there are no maps. I simply want to get the carriers who are in that class treated in the same way as the carriers who have maps that have generally been found sufficient and reliable, but who have not been putting those things on the maps which they keep up.

STATEMENT OF D. W. LUM, SPECIAL ENGINEER, SOUTHERN RAILWAY.

MR. LUM:—Speaking for those who have no maps and profiles, or at least a very few, I want to take your time just a few moments, in order that I may get my own mind cleared up. It is very hazy, as will be observed.

I do not want to discredit a map or a profile. I have waded knee deep in maps and profiles for forty-six years. A map and a profile has its use. But there are limits to the use of a map or a profile. Our object is to furnish such information as is needed for a valuation. The object is not to make a picture.

I hope gentlemen will pardon me if I say anything I do not mean that may appear sarcastic, or anything in that direction, because sometimes I run away. Our object is not to make a picture. A picture is of no use whatever to the engineering board. But a map and a profile is a signboard to indicate the way you are going, not to save you making the trip.

The maps and profiles for those roads which are not supplied will cost a vast amount of money, millions of dollars. It is within your power to so modify the requirements of your specifications that that amount of money, or a large portion of that amount of money, may be saved to the carriers or to the Government, whichever does the work.

A map and profile, save only to indicate the boundaries of the property (which we cannot describe in any other way) is worthless. A profile is worthless—that is radical, but I shall not ask to have the statement withdrawn. With your permission I would like to indicate to you that a map is worthless, save for right-of-way and land purposes.

You are going, for instance, from Washington to Danville. Nothing that can be offered to you will take the place of your personal observation. You know the way. When you go over that line you will need our assistance to know the boundaries of the right-of-way. You will need to know the length of the track. If you cannot see the bridge when you go over it, it is unnecessary for us to mark it on a picture.

Now, I want to take up the bridge. Each feature of that bridge, that abutment, the ties, will be investigated by you or by some one in whom you have confidence, in detail. Is it necessary therefore to indicate in exactness the characteristics of that bridge on that map?

I will jump now to the profile, with your permission. A profile cannot be made until you have cross-sectioned the line. You can run your line of levels either to sub-grade, base of rail, or where-

ever you may like, but you cannot get the ground line until you have used such methods of cross-sectioning as will enable you to interpolate an elevation for the center line.

This paper asks that you make a most minute picture of these items which you must, or someone must, measure in detail. The course of the record in this detail work is the measurement. That goes in a book. What will you do with it? Put it in a schedule. Sometime, of course, you must put quantity and price.

After you have resolved it into quantity and price, what then? Put it on a map. Are you going to use it on a map? No, you cannot. There is no way in the valuation scheme you can make use of anything you put on your map save the land lines, that I can see, and perhaps the measurement of the track.

The same thing applies to the profiles. You put it in your book. You write it on your schedule. That cannot be avoided. The use of the schedule is what? Only a total for ultimate value. Yes. That is the answer. Now, what is that map? A picture?

I do not want to discredit the maps and profiles; they have their place, and our backs are bent with making maps and profiles. But that is not what the law says. The law says—pardon me, you lawyers. But I understand the maps and profiles were a means to obtain a result. You have your result from your notes and your schedule, your price and your total.

Just a few words with reference to the city maps, and then I am through. It was first planned to make the city maps a hundred feet to the inch, where new maps were made. Some maps are fifty and some are one hundred feet to the inch. If we endeavor to put on a city map all the information that is called for here, it will make the map look like a newspaper, so finely printed, in many cases. In other cases it will not be possible. If you give the cattle-guard a name in the middle of a town, if you give this man's fence (that may vanish in a day) a place, if you indicate that fence, if you indicate the whistle posts, if you indicate the drains, if you indicate the culvert, if you indicate the retaining walls, if you indicate all those little things, what does it profit us? Not a thing. Because why? Because in your investigation you have already taken that mile post, already have taken that retaining wall, already have taken that culvert into your schedule and priced it out, and it has already gone into the final.

Now then the question. Is it to aid? No, not to aid. It does not support, because it is only another record of the same thing which you have already put in a schedule. The reference to titles, if put on the map, will obscure many things that are more important.

The dimensions of subdivisions of the property is a matter which will cause a great deal of trouble in putting on the map.

As I understood our secretary, it was proposed that a complete schedule of all the property is to be offered, is to be prepared and offered. Why put it on that map, and so obscure the other portions of the map that the map is hardly legible?

If I have hollered too loud, or said too much, I hope you will pardon me.

STATEMENT OF M. L. BYERS.

MR. BYERS:—I would like to try to summarize a little bit, something about what Mr. Lum has said. It seems to me beyond question that it is a physical possibility to make an inventory of a railroad property absolutely without the use of any maps or profiles whatever. I am perfectly willing to say it would be a difficult matter to do that—I do not wish to be understood as recommending that such a thing be done—but I think it is a physical possibility.

On the other hand, I think it is a physical possibility to use the paper or cloth of maps and profiles to report all of the data that is necessary for the purpose of making a valuation, so that you will not be obliged to have any other data than the maps and profiles.

There are two absolutely extreme propositions in regard to the method of doing this work, neither of which would commend themselves to any reasonable person. Somewhere between the two extreme points is the position which represents the proper, common-sense method of doing this work. It seems to me that the difference of opinion between your board and this Committee lies in the fact that we think less of this information should be shown on the maps and more of it in the form of schedules, in order that the valuation work may proceed with the maximum accuracy and rapidity, and the minimum of cost.

Mr. Kittredge has some information which will throw some light on that question of cost as affected by the extent to which information is put on the maps or put on the schedules, or showing the information in other ways.

CHAIRMAN THOMPSON:—Mr. Byers, do you agree to this, that these profiles and maps are to be used as a record, and that in addition to any use which may be made of them for valuation purposes, they are here to go into the files of the Commission, as a record?

Mr. BYERS:—I understand we are to furnish you such information, and to aid you in such manner as we can in the work of making a valuation of properties of the railroad.

STATEMENT OF GEORGE W. KITTREDGE,
CHIEF ENGINEER, NEW YORK CENTRAL & HUDSON RIVER RAILROAD.

Mr. KITTREDGE:—I want to get before you this question of costs. I have had some maps made which fortunately all of the Board has seen, and if it were not for the purpose of getting this in the record, I should not insist on speaking at this time.

But I have had some maps, made in accordance with the second tentative draft. I selected two sections, one of which I have called a dense section, which is probably somewhat more expensive than the average of the railroads in the eastern group territory. I have selected another section which I call the light section, which is probably less expensive than the average of the railroads in the eastern group territory.

The cost of making up the maps and profiles in accordance with the second tentative draft for the dense section is \$38.09 per mile. The cost of taking prints of existing maps for that same section, which would give us sufficient information to make an inventory, is \$1.27 per mile. The cost of making up a map as if the railroad company had no map, with sufficient information on it to enable an inventory to be made, is \$35.76 a mile. Those are all for the dense section.

For the light section, the cost of the map, as per the second tentative draft, is \$30.68 per mile. The cost of making prints of existing maps is 51 cents per mile. The cost of making up a map as if no map existed, which would contain information sufficient for the work of valuation, is \$19.02 per mile.

CHAIRMAN THOMPSON:—Mr. Kittredge, you say you have maps of these sections which you think sufficient for the valuation?

Mr. KITTREDGE:—Yes, sir. I not only thought so, but I know so.

CHAIRMAN THOMPSON:—And the cost of making tracings of those maps was how much?

Mr. KITTREDGE:—The prints of those maps, in the dense section, was \$1.27.

CHAIRMAN THOMPSON:—That is blue prints?

Mr. KITTREDGE:—Those were blue prints, the negative and blue print. There were two prints made.

CHAIRMAN THOMPSON:—What is the cost of the print on cloth?

Mr. KITTREDGE:—I did not have those made on that. I cannot give it to you. These are actual figures. There are no estimates in here. These are the actual drafting room figures. And, by the way, these do not include any overhead charges outside of the drafting room. They do not include anything for rent or for heat or light, or anything of that sort—overhead charges.

Mr. PENCE:—For what part of the road were those maps made?

Mr. KITTREDGE:—One is in the vicinity of Hastings. That is in the dense section. That is a straight right-of-way between Gonwood and Hastings, and includes one station map, the village of Hastings.

Mr. HULME:—How far is that from New York?

Mr. KITTREDGE:—Between twenty and thirty miles from New York. We have many sections which are much more complicated than that. This was what I called a dense section.

The other section was near Montezuma, and is as light a section as we could find. It is a location where the road is located a few feet above the level of the surrounding country. There is only one cut on that section. There is a town map in that, and there is a bridge and a large canal across it. It brought in a number of features, but is very light work.

Mr. HULME:—Where is Montezuma?

Mr. KITTREDGE:—Montezuma is between thirty and forty miles west of Syracuse.

CHAIRMAN THOMPSON:—Will you state the conditions under which the work was done. How was it you conducted this work?

Mr. KITTREDGE:—This work was done in the drafting room. The men were put to work on it, having access to such maps and information as we had. A part of it was platted from maps in existence. Some of it was platted from records of bridges, records of buildings. Some of it was taken from our side track records. Some of it was taken from existing profiles, and any other source of information which was at hand; and then platted, as it would be from a note-book, onto a sheet.

CHAIRMAN THOMPSON:—How much field work was involved?

Mr. KITTREDGE:—In these there is very little field work.

CHAIRMAN THOMPSON:—You simply were preparing maps and profiles in accordance with these specifications from information which you had at hand?

Mr. KITTREDGE:—Yes, sir.

CHAIRMAN THOMPSON:—Largely?

Mr. KITTREDGE:—Yes, sir.

CHAIRMAN THOMPSON:—You however did some field work?

Mr. KITTREDGE:—I do not recall whether in this last statement there was anything for field work or not. I will tell you in a moment. The field work in the dense section amounted in all to about \$3.50 for the five miles. That is about 75 cents a mile. On the Montezuma section the field work amounted to about \$9.00. That is about \$2.25 a mile.

CHAIRMAN THOMPSON:—How do you account for this large cost in transferring this information from one map to another, and transferring it from this record to this standard?

Mr. KITTREDGE:—Simply because there was so much to be transferred.

CHAIRMAN THOMPSON:—How was that transferred, by pantograph?

Mr. KITTREDGE:—No, sir, by platting, just as it would have to be done if we made surveys. These figures represent the cost of the maps after you have made your survey. After your survey has been made in the field you are just in the same shape as we were in the office when we began to make these plats. So that the figures I have here are comparable and are available for the purpose of comparison with the different methods that have been suggested in making maps.

CHAIRMAN THOMPSON:—How many sheets were there in that first section?

Mr. KITTREDGE:—In the dense section?

CHAIRMAN THOMPSON:—In the dense section, how many sheets including the profile?

Mr. KITTREDGE:—There was one sheet of four hundred feet to the inch, and one station sheet; and then in making it in accordance with the second draft a separate profile was made—one profile sheet.

In making it according, as I expressed it here, to a map that was necessary for valuation, I put the profile on the same sheet, and made the same kind of a map. For the purposes of comparison I made two maps two hundred feet to the inch, instead of one map of four hundred feet, and one map of one hundred, and a separate profile for it.

CHAIRMAN THOMPSON:—There were only three sheets?

MR. KITTRIDGE:—There were three sheets for that. There was practically the same cost. There was less than a dollar a mile difference in the cost, between those two methods.

I want to say also that after these maps were done in both cases there were portions of them where they were absolutely useless for any purpose of valuation, or any other, without supplementary and explanatory data of schedules. The figures were so close together, the lines were so close together, that they could not be read without a glass. They could hardly be plotted. And where retaining walls came on both sides of the track, one overlapped the other, and there was nothing to indicate that one was on one side and the other on the other. And where the lines are made in one color, as part of this line was along the Hudson River, the shore line of the river, which in some places was inside of our right-of-way limits, was confused with the telegraph line, the power line, the third-rail line, the track lines and the property boundary lines.

CHAIRMAN THOMPSON:—Have you a copy of that estimate which you can submit?

MR. KITTRIDGE:—Yes, sir; I will be very glad to furnish it.

MR. WORLEY:—One question, to make this clear. We want all the facts shown. Is it not true when you speak of the confusion of this thing, that if you had applied some other scale than the four-hundred-foot scale, which the specifications directed you to do, you would have had a much better map of the situation?

MR. KITTRIDGE:—In the Hastings section had we applied a fifty-foot scale, we still would have been somewhat confused. But instead of making a number of small maps we made out the four-hundred-foot scale. I fancy in the other case the expense would have been largely increased, due to the larger number of the maps.

MR. WORLEY:—Mr. Chairman, I would like to say just a word or two, which I think pertinent at this time.

Sitting and listening to what has been said since noon, I believe an outsider might infer that this Board has written a specification, and has presented it to this Committee, and this Committee has taken the position that this Board is an advocate of this specification because its members wrote it.

MR. LUM takes the position that except for land lines on the maps their usefulness practically ends.

MR. LUM:—Land lines and tracks.

MR. WORLEY:—I do not remember of any statement ever having been made to you gentlemen giving reasons why we have asked you for some maps and profiles. I would like to call your attention to just a few statements as to the position of this Board. We have in mind only one thing, and that is to make this valuation work so that when it is through and we are through with it, and you gentlemen are through with it, that it will have been done the very best possible way. We have no desire to have it cost the railroads and Government a cent more than it should. We wish to do it as economically as possible.

I would like to call your attention to the fact that when you are talking about your property, that each of you is talking about his individual property, that you have in your minds a mental picture of every foot of that property; and a picture to this Board, to this Government, and to the one or two thousand men the Government is going to send out on your property to inventory it, is a very valuable thing. We believe that without that picture we are not going to be able to do this work as well, as thoroughly and as completely as it ought to be done. We would like to call your attention to the fact that we are absolute strangers to your property and we are in an entirely different position from you. We are only asking for this picture that it may assist us in getting a ninety-nine per cent. inventory of your property, instead of an eighty per cent. inventory of your property. We may be wrong regarding the details we wish to show on the maps and profiles and our judgment may be wrong in that, but every man on this Board believes this detail is necessary;

and we believe the plainer it is, the nearer we are going to reach a ninety nine per cent. inventory of your property.

MR. BYERS:—That being the object of this picture, do you regard it necessary to have it standard for all the properties of the United States, or cannot the same information conveyed on a number of different plans or different scales, a different arrangement, give you the same information and accomplish the same results?

MR. WORLEY:—In answer to that question, I would say this: The question of standard is a matter of definition. I will say to you in frankness, because we men must work together—that you gentlemen have given our specifications a very narrow interpretation. You have spoken of chaining and measuring out to the poles of a telegraph line. We have never mentioned that. We did not have that in mind at all. We did not have in mind if you have an octagonal signal post, that that is going to be drawn and so shown on the maps. We do not think those things are of importance. We are not coming to an understanding, because I believe you gentlemen are putting a narrow interpretation on our meaning of things. I would like to emphasize to every one of you that we want to be very candid in this thing, and we are asking for this information because we are strangers to your property, and because we wish to give you a ninety-nine per cent. inventory. This Government does not want to give you an eighty per cent. inventory, and we want simply a map and profile that will give you a ninety-nine per cent. inventory. This Board has no desire to impose unnecessary burdens and expenses on the railroads.

There is one other thing I want to say to you, and I hope you gentlemen will pardon me, and I hope the Board will pardon me, because I did not ask permission to make this speech. When we finish this valuation, and in five years or twenty-five years from now, the Government takes out of its archives these records, there will be nothing in the world that will assist in showing to the men who follow us the condition of this property, and its value, so well as will what I call the picture of details we have asked for.

And I would like to say everything we have asked for has been for the purpose of getting a ninety-nine per cent. inventory of your property rather than an eighty per cent. inventory.

I want to call your attention to the fact that we are strangers to your property, and that you gentlemen all have a mental picture of your property in your minds. It is to your advantage that we have this detail in these maps and profiles it is not to ours; it is nothing to us.

MR. BEYERS:—I want to ask you another question. You speak of the use of the maps twenty-five years from now as pictures. Will it not be necessary to picture as of date twenty-five years from now and not as from the day of this inventory?

MR. WORLEY:—No, sir; my idea is it is going to be of the date the map was made. I have no idea that a map is going to be changed one particle, because this is a part of a permanent inventory, and it certainly would be a serious mistake on the part of the Government to permit a map or profile after it comes into its files representing certain inventories and certain value, to be changed. It is not at all unlikely that these maps and profiles will be used ten or twenty-five years from now. We do not know; none of us know.

It seems to me, sitting here and trying to look at this as an outsider, that you gentlemen fail to understand the position of this board.

MR. LUM:—Mr. Chairman, right in line with what has been said, I would like to repeat only the thought that no map that can be made by anyone will represent as much as eighty or eighty-five per cent. that has been referred to, and it was our thought to lead the Board away from the map in consideration of the element of value. It was my thought that the schedule must prevail, and that the map will not, even if made practically complete, and cannot possibly represent clearly the total number of elements, and therefore the map cannot be the guide to the value. That was all I wanted to say in that regard.

MR. PHILLIPS:—I would like to say, in answer to Mr. Worley, that his position as a stranger to our lines is, of necessity, measured by us when looking at the specifications and while I have not wished to be captious in any respect, we have to realize that many hundred men who have not the opportunities to know your views which are not expressed in the written word, will have to interpret this, and our hope is to so amend these specifications that they shall be entirely understandable, and if you can say a thing is to be indicated conventionally, when it can be indicated conventionally, but when you say "show" possibly engineers are apt to take things too literally and will feel, when you say "show a telephone line," they may interpret that to mean that we should show the location of the poles, as we do on the station maps. If the Board would, where they mean to allow some latitude make that wording permit that latitude, I think all of us would be much better pleased.

Along that line, I would like to ask for further information. Is it the understanding of the Board that the information asked for on the four-hundred-foot scale maps which comes within the limits of station maps need be shown? In other words, there is no real necessity for a duplication of a vast amount of this information. A strict interpretation of your specifications might be interpreted to require us to show first everything on the four-hundred-foot scale map, and then everything we get on that and a little more, too, on the station maps. Why not make it so clear that within the limits of station maps the above information need not be required?

MR. HANSEL:—It seems to me that a great deal of this time that we have expended and thought, comes about because we have not the plan except in words. It is customary, I believe, among all engineers and architects, to draw their plans and then from them draw their specifications, and I will ask the Board if these specifications have been tested by them through the drawing of plans which they think would be produced from the specifications?

CHAIRMAN THOMPSON:—We have not drawn any plans.

MR. HANSEL:—Well, there is the difference. Our engineering committee has drawn plans in attempting to interpret these specifications. When so doing it has discovered some difficulties and some seemingly unnecessary work, and I am sure the Board feels that this engineering committee is not seeking in any way to withhold in any essential anything in furtherance of the work. It is desirous of furnishing that data in some form other than that set forth, as understood by us in the specifications. But I feel that we will not get a complete understanding for ourselves and for the some hundred and eighty-five carriers in this country until the plans spoken of under Article 18 are furnished, and it seems to me that in the preparation of those plans your Board will discover as I, myself, have always discovered, difficulties in drawing plans to specifications instead of specifications to plans, that there is confusion, and that you, yourselves, will no doubt change some of the phraseology of the specifications; and therefore I am hopeful that you will be able to furnish us, at an early date, an illustrative plan on all such records, and not the specifications alone, and all these things will be settled by the plans.

CHAIRMAN THOMPSON:—Mr. Hansel, I will say on that, the members of the Board are somewhat familiar with the preparation of maps and profiles, and consequently do not feel that it is necessary to draw these up in order to ascertain whether or not the information we ask is necessary. I think they have some knowledge of the subject.

MR. HANSEL:—I do not intend to suggest ignorance on the part of the Board, but it is evident that there is misunderstanding or ignorance on the part of the engineering departments in attempting to interpret the specifications.

MR. HULME:—Mr. Chairman, I assume you want to finish this subject to-day, if possible, and whether we are discussing maps in the future or maps to-day of existing property, may I just conclude. I would say that with reference to station maps we raise no questions because, under any circumstances, we can dispose of that question and make progress except where it provides the drawing of tracks with double lines.

MR. JONES:—Mr. Hulme, before you finish on the right-of-way and track map, which we have discussed at some length, you started out with the statement that there were a number of items that were impossible. So far I have listened very intently and I have heard no suggestion yet as far as we have gone as to the impossible items. Some of them you think are inexpedient to show, or inadvisable, but not impossible. I am trying to keep track of the impossible ones. We want to keep out the impossible ones.

MR. HULME:—Probably we will strike those when we get to the profile.

MR. JONES:—But there are none on the right-of-way map and station map, as I understand you?

MR. HULME:—I understand Mr. Kittredge to name one or two cases. While he did not say they were impossible he said it would take a magnifying glass to read the map. I hardly think it is advisable to get such a confusion of lines on the map as indicated in that case.

MR. JONES:—I thoroughly agree with Mr. Churchill that instead of using a magnifying glass we should make the map on a larger scale.

MR. HULME:—That means, as Mr. Kittredge says, multiplying it by four.

MR. PENCE:—Are your maps based on single or double-track situations?

MR. KITTREDGE:—The light case was a two-track railroad and the other a four track.

MR. BERRY:—I want to call the attention of the board to something that is giving the carriers a good deal of concern, some a great deal more than others, as I believe, in calling your attention to it, that perhaps you can explain to them whether our interpretation of it is right, and perhaps you may want to change the wording of these specifications.

First, I would just like to read from page 5 of the introductory statement that "all maps and profiles for the permanent files of the Commission shall be on the standard size sheets and on cloth."

Now, I would like to go right back to page 14, the last paragraph on "station maps." A great many carriers, among them the Rock Island, have their station plats on the scale which you asked for, one hundred feet to the inch, occasionally fifty feet to the inch, but they are double lines. It shows everything that your board asks for, and in many cases are up to date. It would require but very little work to make them so. We think for all your purposes these maps, with these double lines, are just as good as a single line, and that it is a burden on the carriers who have maps of that kind, that answer every purpose, and you will concede that to ask them for your permanent files to make even these station plats over on single lines would be a burden. That is for your consideration.

I want to go to the question of scales.

CHAIRMAN THOMPSON:—Let me say on that point, I think your fears on that point are ungrounded—

MR. BERRY:—I was in hopes you would say that, and that is what I have been waiting for.

CHAIRMAN THOMPSON:—(Continuing)—Because the specifications reserves the right to pass upon maps and profiles of existing railways, as to their sufficiency, and I am absolutely sure that your station maps are sufficient for this purpose. I cannot see where you can draw the conclusion that we would require you to redraw these station plats, because a track was represented by double lines.

MR. BERRY:—Coming back to the heading in the first paragraph "the right-of-way and track map shall be made on a scale of one inch equals four hundred feet or one inch equals two hundred feet."

Many of your carriers have maps that will give every bit of information which you ask for, but they may be on a scale of six hundred or a thousand feet to the inch. We think that it is not fair, as long as that gives you all the information that you want, that we should be asked to make for your files maps to the scale of four hundred feet to the inch or two hundred feet to the inch.

Bear in mind. I do not raise any question about giving you the tracings by this new process, but I want to call your attention to the fact that all the carriers, when we have met them, have asked for an interpretation of what that introductory statement means, and wondered if you really were going to ask us to make for your permanent files the maps which your specifications called for and which would be no better for your purposes than the stations map with two lines representing the track, and the scale of the tracings we now have that have all the information, and we would be glad to have you clear that up with reference to existing maps, if the intention is at some time in the future to do what is indicated on that page 5.

CHAIRMAN THOMPSON:—We have it absolutely covered, we think, Mr. Berry, when we say, "upon application to the Commission consideration will be given to permitting certain modifications in the specifications in their application to existing maps and profiles."

MR. BERRY:—But, Mr. Thompson, on the wording put in there, you say, "all maps and profiles for the permanent files of the Commission shall be on the standard size sheets and on cloth."

CHAIRMAN THOMPSON:—There is not a word at all about scales or double lines; it says, "sheets and cloth."

MR. BERRY:—Yes, but you say, "no modification of the standards, however, will be permitted," and your specification is very specific on station maps. I believed that you would straighten that out.

CHAIRMAN THOMPSON:—But it reads, Mr. Berry, no modification of standards, however, will be permitted on certain character of maps there enumerated.

MR. BERRY:—Then you do not mean that where the carrier could furnish the maps that you speak of, station maps and right-of-way maps you speak of, you won't ask them or make them redraw them in accordance with that specification?

THE CHAIRMAN:—If they are correct maps.

MR. JONES:—That language speaks for itself, Mr. Berry. There are only two things at present in which we say we will rigidly hold to the standard, and that is the size of the sheet must be 24x56 or 12x56, and that it must be presented on tracing cloth. All other items in the specification are subject to modification, every other one of them; that is, they are subject to the consideration of modification of them; but these two things are inflexible.

MR. BERRY:—All I have to say is it is not my individual opinion; a great many carriers have the same doubt I expressed to you about it.

MR. JONES:—We intended the language to be plain and specific.

MR. BERRY:—I wish you would bring that point out a little clearer in your wording, so that the carriers will not ask you and us these questions.

MR. PENCE:—It is natural that the inquiry should be made, and it is also natural that if you are going to have the specification that there should be some interpretation, a yielding of some points would be proper and natural. Now as to that point of whether or not this exemption which you are insisting on should be made, that brings up the question, Mr. Berry, as to how far the Board can cast loose in coming to a ground that everyone will approve of.

MR. BERRY:—I think I understand what the Board says perfectly, and if it can change the wording so that the carriers do not misunderstand it, it will help us.

MR. JONES:—Mr. Berry, I know that you will appreciate the difficulty of going into any detail as to exceptions. You might want us to accept double line drawings, and another man might want us to accept a drawing on the three hundred foot to the inch scale, and another man might have some other little modification which did not comply with our specifications, and we might have ten thousand exceptions which we will make on special hearings, but we could not, certainly, outline what we are going to accept. We have tried to cover it with the general statement that there are only two things in these specifications which we stand on, and we do not feel we should recede from, and those are simply matters of file convenience or convenience of handling.

We want them on permanent material in the first place, and we want them standard sizes, so they will fit the standard filing cabinet or drawing case, and we do not feel that we could have a thousand different sizes which would make a filing condition that we could not handle.

MR. LUM:—I want to ask if a series of station maps that were acceptable to the Board so far as the items shown are concerned, if those particular station maps were on sheets say eight inches shorter than the prescribed length, and two or three inches narrower, would they be acceptable? That is really a very close question, because it represents several hundred sheets of our own.

THE CHAIRMAN:—I would say that that was easy, because when you went to copy that map, whether you did it by hand or whether you did it by any other process, you would use the standard size sheet. If it was six inches longer, you would have difficulty.

MR. JONES:—Mr. Lum, this illustrates to my mind the difficulty of asking us what we would accept and what we would not. If we would tell you we might accept one three inches longer somebody else would have one four inches shorter and four and a half, and another man five, and we would have all sorts of sizes. The minute we receive two inches shorter for you we would have to receive two and a quarter for somebody else. It is absolutely essential, as we see it, to fix a standard size for these drawings, and some standard scale, as we have done.

I would like to say just one word, Mr. Chairman, as we all seem to be a talking humor this afternoon, concerning one thing that I think we have overlooked. If I thought that we were providing specifications here that would cost the carriers fifty-eight dollars a mile in the congested districts and some thirty-five dollars a mile on districts that were alluded to in the East—probably that would not be right out in the West—I certainly would sit up for some time and try to study out some scheme for reducing that cost, if all the service to be secured from these maps was simply for this valuation purpose. But the underlying thought with us was that we were standardizing general records that the carriers already make for their own purposes. Notwithstanding Mr. Lum says that they are absolutely of no use, the carriers have for ages been making such maps and profiles for their own general use and to have a record which would give a mental picture of their property. They find them of service in the operation and maintenance of their roads, and all we are asking you to do, is in addition to their value as operating and maintenance records, that you shall also complete them to such perfection that they will be good valuation records, and when you perfect your map you will have a series of maps and profiles that will pay for themselves in the use you will get out of them for purposes other than valuation maps.

In our last conference I believe that Mr. Smith over here stated to us that he had been in the work of preparing records for several years regardless of the question of valuation, in order that they could have a mental picture—if you want to call it that—of their property in their offices. He is spending some money for that. I do not know how much. But evidently the management of that property is convinced that the money they are spending is well spent; they are getting use out of it; they are getting service.

So that we think we are simply standardizing your every day records; we are not trying to create something new that would be an additional lot of drawings in your files; and if we are specifying drawings that are not serviceable to you, we would like to have your criticisms along that line. If we are putting on here something you exclude every day from your ordinary office records, we would like to know that.

From our observation, from the few carriers' records we have examined, we find that most of the information we have specified here is on either one or the other record. Some of them will show some things, and others will show other things. We go in one office and we find that some will show some things, while we go in another office and we will find that one shows a great many things that the other man does not, but take them in the aggregate and they show all of these things that are in our specifications.

MR. HULME:—I should like to answer you right there, Mr. Jones. Candor requires you should be answered.

It is not the practice of the carriers in the East, in congested districts, to show all these things on one map. The very multiplicity of them has required that separate maps shall be used for that purpose, and it will not be possible to furnish any one map for the government which will show, except in station maps, where there will not be involved a large expenditure, to combine all this information which is now in the possession of the carrier, on one map. That is an absolutely correct statement, I think. We have one kind of information on one map and another kind on another. On those separate maps it serves our purposes. To give you the picture, so that you by referring to that picture, might find all our improvements, will involve us in a cost I am sure you never thought would occur. It may not be as great for all the carriers on an average as has been stated by Mr. Kittredge, but we have not got this information all concentrated on one map except the station maps. It is not the practice for the alignment maps to so show it.

I had not intended to say another word in connection with the subject, but your comments have caused me to make that candid statement.

If I shall proceed, Mr. Chairman, I will finish, I think, in less than two minutes.

MR. WENDT:—I interpret your statement to mean that the carriers have one set of maps showing the land—

MR. HULME:—Yes, sir.

MR. WENDT:—(Continuing)—A second set of maps showing tracks and structures?

MR. HULME:—A third set showing signals; another set for bridges, and so on, as we go through the different classes.

MR. KITTREDGE:—In making up the map of that section I took information from twenty-three different maps, in making up the maps over the light section we took information from sixteen different maps.

CHAIRMAN THOMPSON:—Would you prefer to file twenty-three maps in the first place?

MR. KITTREDGE:—I should prefer to file the prints of all these twenty-three.

MR. HULME:—We do not out of mercy to you; that is the easiest thing for us.

MR. JONES:—Mr. Hulme, your statement is generous in the extreme, that this is a mercy to us. Suppose we would say that we would accept these maps in that form. I do not think the man is living who would be intelligent enough to get all that information together as it ought to be gotten together. Only the men in the initial offices understand how to combine the records from twenty-three maps and get the facts on one, or get them in their heads as one. Mr. Kittredge drew information from twenty-three sources. If he had sent in here those twenty-three maps we would have had some difficulty in fitting up twenty-three maps together in our heads as a mental picture. Moreover, the Government would have had considerable trouble in filing that number of maps for each station property at its offices in Washington as a record of this valuation.

Again, if the carriers combine this information, will it not be, in the end, much more convenient for them? If Mr. Kittredge had all this information on his one map he would have saved that fifty-eight dollars per mile when he wanted to look that information up for some other purposes, as he would have to look that up, no doubt, in several different offices. He would have to go to the track office, the bridge office, and to all these records. If you had all that information on one map would that not be a more serviceable record and save a great deal of time in the regular operating and maintenance work for the railroad?

MR. HULME:—If these maps were all combined that information would be in such complex situation as to be absolutely useless to the carriers. They abandoned such records, a long time ago and made special maps to show special things.

MR. HULME:—My personal view of what is meant by the requirement of the Act, when they say we shall furnish maps, is that we shall furnish copies of such maps as we have, and not that we shall combine these things in one map in order that you may have, as you call it, a picture of what we have. We think we have shown our desire to cooperate with you, because you can see that is

going to cost us money, and we say now, "Do not make that cooperation extremely costly to us."

CHAIRMAN THOMPSON:—Don't you think it is proper for the board to have in mind the average situation and not the special situation? There are probably four or five thousand miles in the United States, of railroad—not near that much, I think—but we will say four or five thousand miles that is complicated as Mr. Kittredge has suggested. We are drawing specifications for 250,000 or 300,000 miles of line in the United States. If there is any such situation existing as Mr. Kittredge has outlined here to-day, it occurs to me that probably a special order might be issued covering specifications for that class of track. We are trying to draw specifications for the average situation. I think that should be borne in mind.

MR. HULME:—I want to remind you, Mr. Chairman, that we are not objecting to the general features of your specifications. It is only when we come to the discussion of the refinement of the small things that we speak of the case to strengthen our contention that you should not go into minuteness in this thing.

Shall I proceed?

CHAIRMAN THOMPSON:—Proceed.

MR. HULME:—On profile.

We are now speaking of things that are not possible. Under roadway "the vertical projection of the original ground surface on center of line of railway." That is speaking of maps on constructed lines where there are no maps. The other things are possible to be done.

Turning to (b) "structures," I should stop with "projection," so that it should not be expected that the carriers would state the kind and general dimensions by figures; average depth of penetration of piling in each bent of trestles, or under other structures by vertical projections, nor should they be expected to show on such maps character of and depth to foundation bed of masonry structures, by vertical projections.

THE CHAIRMAN:—That would not be required, obviously, where the information was not at hand.

MR. HULME:—(c) does not apply, and with reference to the alignment and track I can add nothing that I did say before on that subject. We have already expressed our views about the duplication of it.

That closes that phase of the question.

MR. JONES:—So that the impossibilities—I want to get this clearly in mind—seem to limit themselves to showing the original ground surface, when the ground is covered up with grading, and showing the depth of the penetration of piling and depth of foundations of structures, things that are hidden underground, in other words, on existing lines.

MR. HULME:—And generally, the impracticability of showing much of this in detail.

MR. JONES:—The impracticability, in the final analysis, is a matter of judgment.

MR. HULME:—Yes, not an impossibility.

MR. JONES:—And we, of course, can admit that some things may be inexpedient, it may be inadvisable to try to show them, but the impossibilities are few.

Where these items of original ground surface and depth to foundation beds, penetration of piles, are not matters of record in the offices of the carriers, some estimate will have to be made in order to make a valuation of the property. If that estimate is made and stated in the form of a schedule or inventory, could not that same estimate be placed upon the profile?

MR. HULME:—And, it being an estimate, and it not showing on the plan that it is an estimate, when Mr. Worley's successor, twenty-five years from now, comes along, he will take it as a fact. Mr. Worley won't be here.

MR. JONES:—If we agree upon it as a fact to the best of our knowledge and ability ought it not to be shown as a fact?

MR. LUM:—Yes.

MR. HULME:—Nothing is said in the specifications about there being an agreed fact. It is something we are required to do. I do not want to assume to close this phase of the question, but I will not pursue further that subject. I take it you desire us to remain until to-morrow. I would like to develop what would be your plan as to adjournment. It would be quite agreeable, I think, to our Committee, to remain late to-day, but I did want to see whether the opportunity could not be taken, before we leave this afternoon, for you to develop your methods as to inventory, and your ideas of cooperation. That is so broad that it would probably enable us, by knowledge of your thoughts in that connection, to come back to you to-morrow, perhaps, with many of these doubts to which you refer put out of our mind, so that we would not occupy your time by consideration and by discussion among ourselves, if we had some idea what your views were.

MR. WENDT:—I want to call your attention again to the specifications for maps and profiles which are made in connection with extensions and improvements. Is there any feature of these specifications which you look upon as impossible in connection with extensions and improvements?

MR. HULME:—My recollection is that the answer is no. We have suggested some minor modifications.

MR. HANSEL:—Before closing, I would like to speak a moment on the subject of indexing, on page 11, article 12.

I would say that I have not had an opportunity to discuss this question with our Committee, and I want to ask the Board if it will hold that subject open for a further hearing from us, for I feel it is entirely inadequate for the services of the Board. I feel, in the first place, to state it briefly, that all of the information should be sufficient for filing. I feel that all of the sheets should be the same size for our indexing, as it is in other things, so that it can be bound.

I have, on the Pennsylvania System, covering twelve states, some hundred corporations and five hundred different branches of these corporations. I have applied this system to that condition, and it is exceedingly simple, and I think a great deal more satisfactory than is set forth in the specifications. I appreciate that the Board has accepted our suggestion as to having the index map, and I feel, therefore, that they will be glad to have us—if I am supported by the engineering committee, as I feel I shall be—offer them something better than has been asked for. I feel that in the carrying on of this great work your filing system is exceedingly important, especially when the States come to the records, and it is the desire of the engineering committee, in this, as in other things, to assist. I feel that we owe it to you to offer the very best thing, no matter whether the Board has been content to accept something else or not, and I wanted to ask if they would hold that in abeyance until we could offer a complete, and I think, a satisfactory filing system, for everything, including the maps, and so forth.

CHAIRMAN THOMPSON:—Mr. Hansel, when can you furnish that?

MR. HANSEL:—I think I can furnish you a bound volume in two weeks.

CHAIRMAN THOMPSON:—What we would like to have suggested at this time is a substitute for our paragraph 12, or modification.

MR. HANSEL:—I could hardly offer that, because I desire first to get up a complete filing system. I have here a sample of the lines east of Pittsburgh, but I have not got their maps.

CHAIRMAN THOMPSON:—You are to offer us, though, a substitute for this paragraph 12, are you?

MR. HANSEL:—No, I am to offer you, with the consent of the engineering committee, who have not had this up, a plan, and then if the plan is satisfactory the engineering committee can draw its own substitute.

CHAIRMAN THOMPSON:—Do you think this section would be modified by your plan?

MR. HANSEL:—Oh, yes.

MR. JONES:—It would be amplified? Your idea is to give us more?

MR. HANSEL:—It would be amplified and there would be no scale as set forth.

CHAIRMAN THOMPSON:—We would like to have you take that up just as soon as you could, because we must close this matter up in a very few days.

MR. HANSEL:—In a few days? Well, if you will state the full amount of time I could have on that—

CHAIRMAN THOMPSON:—No, I could not state that very well. I would say a week, or such a matter.

MR. HANSEL:—If this skeleton of half an inch scale index is called for it would destroy everything that we are aiming at, and I am satisfied we are going to give you a better system.

CHAIRMAN THOMPSON:—If you have such index, we would be glad to have the benefit of it.

MR. HANSEL:—It is evident that any scale will necessitate a different size. Then all we will want to do is to accomplish the things you are after, that is to get everything on the one size and get it in the more complete index. In other words, we cannot get a map of Pennsylvania on the same scale as we can New Jersey, and therefore, by taking a map of Pennsylvania the same size as New Jersey, no matter what the scale is, we should show all of the factors so clearly that the title or the stamp on the map will be enough and in fact more correct information than the title itself.

MR. PHILLIPS:—I have always understood that a skeleton map did not necessarily reflect the true relations of lines, and what the board calls a skeleton map on a half-inch or quarter-inch or any other scale, is really a conventional diagram of the properties under discussion at that time. It might clear things up if I am corrected, if I am wrong in this matter.

CHAIRMAN THOMPSON:—I do not understand that. I understand that Mr. Hansel's suggestion would do away with this diagram or index map.

MR. HANSEL:—I find that a diagram is not satisfactory, because it does not give you the geography. I propose to give the geography of every branch absolutely, so you can tell the county it is in and everything, so that each sheet or drawing—small probably—will also serve as a subject for correspondence, and that each will all carry its own tale and anybody can file a map or a letter under this system, and they will be all the same size sheets, and you will have the geography. In other words, if a branch is only half a mile in extent, it will show exactly the county it is in, and everything, whereas a diagram does not and is not satisfactory. I wanted to offer you something greater than you have asked for.

MR. JONES:—We would certainly be glad to have it, Mr. Hansel, and we will study the matter. We felt that our indexing here was of the simplest possible character, and no doubt it would have to be supplemented in the filing room by other numbers, which would be put on at the office.

CHAIRMAN THOMPSON:—Is there anything further to be said on the subject of maps and profiles? If not, we will dispense with the services of the reporter here and proceed informally.

(Thereupon, the Chairman having announced that the services of a stenographer would be dispensed with, the conference proceeded in the nature of an informal discussion.)

Before the Interstate Commerce Commission.

IN THE MATTER OF VALUATION OF
PROPERTY OF COMMON CARRIERS
SUBJECT TO THE PROVISIONS OF
THE ACT TO REGULATE COMMERCE.

Conference between Board of Engineers represent-
ing the Interstate Commerce Commission
and Committee of Engineers representing the
various Railroads in the United States.

MEZZANINE ROOM, NEW WILLARD HOTEL,
WASHINGTON, D. C.
Wednesday, Oct. 15, 1913.
10 o'clock A. M.

Parties present as on yesterday.

CHAIRMAN THOMPSON:—Gentlemen, you will please come to order.

The Board will state that the objections and suggestions made by the Railway Committee yesterday to the specifications for maps and profiles will be taken under advisement and duly considered before making a final report or recommendation to the Commission, and before closing that subject I would like to ask the representatives of the States who may be present if they have anything they would like to say on the subject of specifications.

MR. THORNE:—There is one suggestion that has been offered concerning maps and profiles crossing State lines.

We suggest to your minds the insertion of a sentence some place in the specifications in substance as follows:

"That at points where a railroad crosses the boundary line from one State to another no map or profile shall contain data located in more than one State."

I understand this was intended to be cared for when it came to the inventory. I just want to suggest this thought to your mind, that your maps and profiles are going to be the basis of the entire future work, and it will thereby enable distinct separation that might be the cause of some future confusion. The four miles of track, for instance, between Kansas City, Kansas, and Kansas City, Mo., involve property in both States; the same is true at St. Louis and East St. Louis.

In regard to the criticisms that have been made by the railroad companies, I believe that it is contemplated by the Board of Engineers to have some substantial separation between schedules and maps connected by serial number references. To that suggestion—if there is any novelty in the suggestion from the railway company—the States would have no criticism.

At this stage, after your discussion is concluded on maps and profiles, I would like to call your attention to the question I asked yesterday morning at the beginning. I had heard Mr. Hulme repeatedly say that these specifications were making requests for information unnecessary for valuation purposes, and at this moment I can not recall one criticism that was made during the entire discussion that went to that proposition. The entire criticism that has been made by these gentlemen has been as to the manner in which that information shall be given, and not to the information that is required.

Second, as to the manner in which it is given: That criticism has been almost wholly concerning existing maps and profiles. To my mind you gentlemen have abundantly cared for that problem in your introductory statement and in the statements of intent. You say very plainly:

"It is not practicable to state at this time the extent to which the present maps and profiles may be acceptable. This can only be determined in the case of each carrier by an examination of its records by the Commission. The carriers, however, are assured of the purpose of the Commission to demand only that amount of work to perfect existing maps and profiles as in its judgment is necessary to make them acceptable, but all maps and profiles for the permanent files of the Commission shall be on the standard size sheets and on cloth."

The only two essentials to your requirements as to existing maps and profiles being the character of material and the size of the sheets. And you reiterate the same proposition in the intent, the last clause:

"Except as these specifications in their application to maps and profiles existing at date of issue of the order may be modified by special permission of the Commission."

There has been perhaps some confusion in the consideration of so many things which the Committee and the Board have had under discussion, but to our minds that suggestion has been very clearly cared for by the Board in the drafting of the specifications.

As I have stated, it was repeated a number of times by Mr. Hulme that you are asking for lots of information that is absolutely unnecessary for valuation purposes. At one time he suggested that, in that way, you were exceeding your authority. And yet, when it came to analyzing the concrete criticisms, they had none where you asked for information not necessary for valuation purposes; with only one exception that I can now recall. This single exception related to the request for schedule of leases.

CHAIRMAN THOMPSON:—You understand that the railways for working purposes, will probably be divided into valuation sections, and the valuation sections will be broken at the State lines, at least.

MR. THORNE:—That would care for the suggestion we make.

CHAIRMAN THOMPSON:—And in order to comply with that provision of the Act requiring that the valuation be reported by State lines, we will discuss that subject of valuation sections, and will probably cover somewhat the point that you suggest. However, we will bear in mind the idea of breaking the map and profiles at the State line.

Are there any other representatives of the States present who would like to say anything on the subject? If not, we will pass to subject No. 2, inventory forms.

(Thereupon, at 10.25 A. M., the Chairman having announced that the services of a stenographer would be dispensed with, the conference proceeded in the nature of an informal discussion.)

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END OF
TITLE